

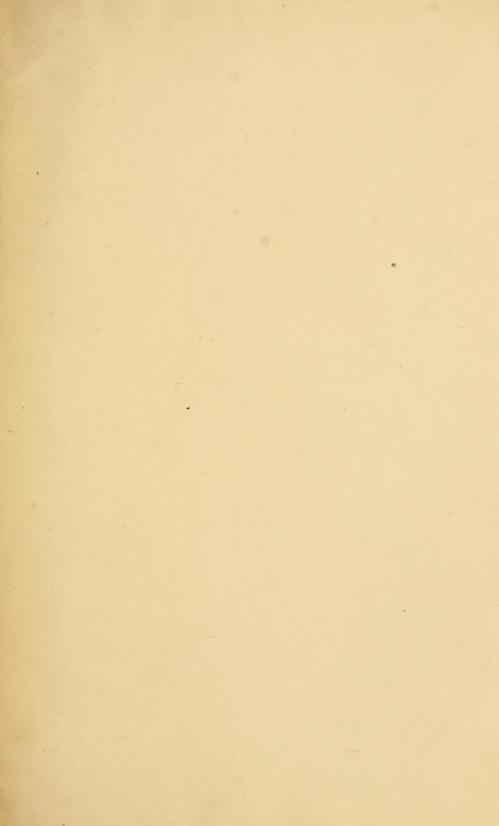
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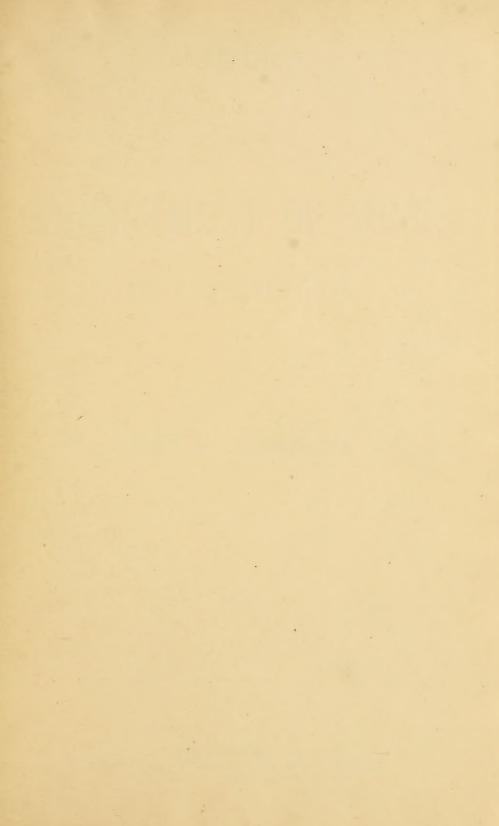
Roger J. Howell

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REPORT

OF THE

DEPARTMENT OF MINES

OF PENNSYLVANIA

Part I Anthracite

1905

HARRISBURG, PA.:
HARRISBURG: PUBLISHING CO., STATE PRINTER,
1906.



LETTER OF TRANSMITTAL

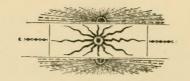
Department of Mines, March 30, 1906.

To His Excellency, Samuel W. Pennypacker, Governor of Pennsylvania:

Sir: In compliance with the Act of Assembly of April 14, 1903, I beg to submit herewith, for transmission to the General Assembly, the report of the Department of Mines for the year ending December 31, 1905. Part I covers in detail the operations in the fifteen Anthracite Districts, Part II the operations in the sixteen Bituminous Districts, as returned by the Inspectors. Observations and suggestions are also offered relative to mining subjects.

Respectfully submitted,

JAMES E. RODERICK, Chief of Department of Mines.



REPORT

OF THE

DEPARTMENT OF MINES

INTRODUCTION

The year 1905 was a most extraordinary one in the industrial life of the United States. In all branches of trade there was felt the quickening impulse of prosperity, and the great coal-producing centers of Pennsylvania were alive with an activity never before equalled. As a result, the output that has been growing by leaps and bounds during the past decade reached a totality of 198,008,534 tons. The significance of this tremendous tonnage as a means of augmenting the wealth of the country, and as a source of comfort to all classes of people, can scarcely be appreciated. Persons ordinarily have but little conception of the value of coal either as a domestic commodity or as a factor in the development and maintenance of our great industrial interests. Anthracite coal, by reason of its clear-burning and intense heat-producing qualities and its limited production, has become one of the great luxuries of modern life in the eastern part of the United States. Bituminous coal is the great power that lies at the foundation of all our manufacturing interests. It enables the factory, the furnace, the locomotive and the steamboat to create and transport the vast and constantly growing wealth of the land. It is small wonder, then, that the mere suggestion of a strike of the mine workers is enough to cause alarm and anxiety among the manufacturing and transportation interests, as well as among the vast army of householders. The financial welfare of the former and the physical comfort of the latter are dependent largely upon coal, and naturally the advent of any element that threatens the disorganization of the trade or interruption of production, is viewed with feelings of trepidation.

The total coal output of Pennsylvania for the year represents a value at the mines of about \$350,000,000, and at points of distribution of about \$650,000,000. The anthracite production was 78,647,020 short tons, and the bituminous 119,361,514 short tons. In producing the tonnage of the year in the anthracite region 551 employes were killed inside the mines, the ratio being 1 employe to every 142,735 short tons. For every 1,000 employes 4.73 were killed. In the bituminous region 444 were killed inside the mines, the ratio being 1 employe to every 268,832 short tons. For every 1,000 employes 3.26 were killed. The number killed outside in the anthracite region was 93; the number in the bituminous region 35. The total loss of life in and about the anthracite mines was 644, and in and about the bituminous mines 479, total 1,123.

The only note of disparagement to be struck in reviewing the bituminous trade is in regard to the price at which much of the coal was sold. At certain periods of the year the price fell to 75 cents a ton at the mines, and at this figure even the tremendous production failed to bring satisfactory results to the operator. It is a most gratifying thing, of course, to contemplate the unprecedented output, but it would have been more to the purpose had the output been restricted somewhat and the profits thereby enhanced. Coal cannot be forced upon the market when there is no demand for it, without serious loss resulting to the shipper.

We hear a great deal about the inefficiency of the car service, the dilatory movement of the cars, and the inadequacy of the supply, but the scarcity of cars cannot under the present conditions be considered as an unmixed evil; in fact, it may be regarded as a blessing. With a production already so great that, notwithstanding the heavy demand, prices were forced to an alarmingly low figure, a freer movement of cars would have been little less than a calamity. The coal industry, however, notwithstanding the great increase in the productive capacity, is every year attaining nearer and nearer to systematic regulation. Both employer and employe are learning, too, that their interests are identical, and that harmonious relations are essential to their mutual success. Altogether the outlook is decidedly favorable for the establishment of business-like rules by which this great industry can be controlled, so that it will be a source of continual profit to both employer and employe. Pennsylvania continues to lead the coal mining industry of the country, producing practically all of the anthracite and 30 per cent, of the bituminous. Its mines furnished about 49 per cent, of the total output in 1905.

The jurisdiction of the Department of Mines, under existing laws, extends only to the coal mining interests. A great deal of thought has been given to the enactment of legislation that would tend to safeguard the coal miner in his hazardous work, and at the same time treat with justness the rights and interests of the operator. The coal-mining industry of Pennsylvania is so vast that it has overshadowed all other kindred industries, and the result has been that the slate, ore, graphite and fire clay mines and stone and cement quarries have been allowed to develop with complete freedom from legal restraint or guidance. These interests are now great enough to demand attention. They have reached a stage of development where they should be brought within the purview of the law. The operators of these industries should be compelled to take all the necessary precautions to protect their great army of employes, and the employes in turn should be brought under such statutory regulations as will insure careful attention to the rules necessary for the protection of life and property. It is the judgment of this Department that the next Legislature should be made familiar with the need of these industries for proper regulation in their development and operation, and to that end a bill will be prepared and introduced at the Session of 1907.

Summary of the Work of the Department (formerly Bureau) of Mines .

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MINE INSPECTION

The work of the inspectors during the year, taken as a whole, has been excellent, but in two or three instances it has not been sufficiently well done to meet the standard required by the Department. The delinquent inspectors have been notified in regard to the matter, and it is believed that improvement will be shown in their work in future, as they have the ability to serve the Commonwealth with as great effectiveness and thoroughness as the other inspectors.

As stated in previous reports, the work of the inspectors, if done conscientiously, is extremely strenuous and hazardous. For the enlightenment of those who are always finding fault with the inspectors, I enumerate some of their duties as they appear on the records of the Department: Inspecting mines, inspecting machinery in and about the mines, investigating accidents, attending inquests, inspecting maps and plans, consulting on mining and legal matters, attending court, examining candidates for mine foremen and assistant mine foremen, and doing the clerical work of the office, which consists, in part, of weekly, monthly and annual reports to the Department. They are also required to be present at mine fires, to visit mines after explosions of gas whereby the mines are damaged and ventilation interrupted, and to make extra examinations of mines where the foremen have any suspicion of a "squeeze" or of a "caving-in" of any part of the mine. At critical times they are expected to lead the investigating party when they know or believe that the mistake of a subordinate might mean death to the whole party. 2,001 days were spent by the inspectors in making mine inspections, 250 days inspecting machinery in and about the mines, 500 days investigating accidents, 102 days attending inquests, 198 days consulting on mining and legal matters, 38 days attending court, 204 days traveling on duty, 161 days examining applicants for certificates as mine foremen and assistant mine foremen, 133 days were consumed by sickness and injury that prevented the inspectors from working, and 1,026 days in doing clerical work in the office and attending to other duties. The Department allowed 80 days for vacations. It may be stated here that the records of the Department show the work in detail of each inspector. The reports of the inspectors for the year show that the mines are in good condition so far as safety, ventilation and sanitary requirements are concerned. Detailed information on this subject will be found in the various reports of the inspectors.

The abstract herewith will show the number of mines, the number of employes inside and outside, and the production in each anthracite and bituminous district. There were 2,005 mines in the State, under the supervision of thirty-one inspectors. If the anthracite mines were apportioned equally among the inspectors, each district would include about 45 mines, but under the present law, on account of county lines, they cannot be so divided. If the bituminous mines were apportioned equally among the inspectors, each district would include about 85 mines. This division, however, would be very unfair, as some districts would be very much more difficult to supervise. In some cases a district of 60 mines might place more responsibility upon the inspector and require more attention than another district that included 100 mines.

It is proper to say here that the State of Pennsylvania has as many inspectors as Great Britain has for all her coal mines, iron mines and slate quarries in England, Scotland, Ireland and Wales.

| | Anthracit• | | | | | Bituminous | | | | |
|---|---|---|--|--|--|---|---|---|---|--|
| Districts | Number of mines | Number of employes inside | Number of employes outside | Production | Districts | Number of mines | Number of employes inside | Number of employes outside | Production | |
| 1st, 2d, 3d, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, | 36 46 25 42 44 40 52 35 110 21 18 50 45 55 20 | 8,490 7,554 7,482 8,716 9,616 8,285 9,049 9,256 9,467 6,138 7,148 6,602 5,828 9,823 2,917 | 2,743 2,361 2,383 3,035 3,435 3,151 3,919 3,353 5,751 3,924 3,648 3,396 5,385 1,618 | 4, 284, 033 4, 192, 603 4, 508, 195 5, 407, 571 5, 225, 201 4, 630, 653 5, 4415, 992 6, 770, 022 7, 618, 725 4, 132, 015 4, 182, 415 4, 289, 288 3, 445, 481 4, 895, 697 1, 743, 592 | 1st, 2d, 3d, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 1sth, 1sth, | 666 766 112 85 666 91 666 125 59 70 61 65 120 69 | 9,534 8,730 6,862 8,395 6,472 10,553 8,832 6,784 7,473 8,740 6,356 10,086 10,061 8,184 9,047 9,781 | 1,145 2,807 899 1,255 4,488 1,461 932 548 2,767 1,370 1,940 1,259 866 921 2,317 29,051 | 8, 094, 084 8, 669, 747 4, 007, 297 5, 299, 280 8, 515, 233 8, 635, 832 6, 197, 785 4, 489, 393 8, 682, 541 5, 404, 318 8, 449, 810 9, 107, 883 8, 791, 547 7, 600, 003 6, 312, 985 10, 703, 733 | |

INSPECTION OF SAFETY CATCHES.

Two accidents occurred during the year, by reason of inefficient safety catches, one at the Conyngham shaft, and one at Clear Spring shaft, in which 17 lives were lost. These accidents created a good deal of excitement, especially in the counties of Lackawanna and Luzerne, and the public press had a great deal to say about the dangerous condition of the safety catches at the different shafts.

The Department decided to have an inspection of the shaft cages made immediately in the most thorough manner, and in the presence of the inspectors. The following letter was therefore sent to each inspector:

"Dear Sir: The frequency with which fatal accidents occur in the shafts and slopes of the anthracite mines leads me to think that possibly there may be some negligence or oversight on the part of the persons directly in charge of the machinery in and about the mines. I therefore instruct you to see at once that the provisions of the mining law, as found in Article 4, Sections 9, 10, 11, 12, 13, 14 and 15, of the Act of June 2, 1891, are complied with to the letter at all the mines in your district. Take no promises from anyone, but insist on immediate compliance with the requirements of the law that bear directly on the protection of human life. I suggest that you be present at at least one test of the safety catches at each shaft, and remain until every cage, where men are lowered and hoisted, is tested, to satisfy yourself that the safety catches are efficient. Afterwards insist that these tests be made at regular intervals and a report be made to you promptly, signed by the persons making the tests. Also insist that a daily record be kept of the examinations as provided for in Section 13, to be signed by the person or persons making the examinations, and you will be required to examine these records while on your tour of inspection. Let all other matters, except attending to accidents, be secondary until you have fully covered your district. You will then be expected to send a full report of your examinations to the Department of Mines.

Kindly acknowledge receipt of this letter.

Very truly yours,

JAMES E. RODERICK,

Chief of Department of Mines."

The inspectors made written reports to the Department of the testing of the cages, giving the result of each test. They found several cages that needed slight repairs, but in only a few instances were the cages and appliances condemned.

Not desiring to express an arbitrary opinion as to how often the safety catches should be tested, I asked each superintendent for his opinion, and the answers received varied very greatly. Some of them said once a week and some said once a year. The Department did not fix any stated time for the testing of the safety appliances, but instructed the inspectors to notify the superintendents that they should see that they were tested as often as necessary and a report sent to the inspector. The inspectors are not required to be present at these tests unless requested to do so by the superintendents, and, when they are so requested, the tests must be made in the day time.

While 17 persons were killed during the year on the cages in shafts, through the failure of safety appliances to work, it is nevertheless true, as stated elsewhere, that the safest place in a coal

mine in on the cage in the shaft. This opinion is expressed after a careful investigation of the causes of accidents during the past thirty-six years, the results of which can be seen elsewhere in this report.

EMPLOYMENT AGES OF BOYS

The Legislature of 1903 passed a law making the minimum employment age of boys inside the mines sixteen years for both the anthracite and bituminous regions. This proved to be a most un popular enactment among the rank and file of the mine workers. The anthracite workers did little more than complain about the injustice of the law, but the bituminous workers aided the operators in having it referred to court, where it was declared unconstitutional.

The Legislature of 1905 passed another law making the minimum employment ages of boys inside the anthracite mines sixteen years, and outside fourteen years. This also proved to be unpopular with the mine workers, and by many persons was thought to be unconstitutional. It was referred to the court of Luzerne county for a test as to its constitutionality, and Judge Wheaton, in an elaborate opinion, decided that so far as it related to the qualifications of the boys it was unconstitutional, but that the section bearing on the ages was in no wise a violation of the constitution. The Superior Court in a decision written by Judge Rice affirmed the decision of the lower court. The act and the opinions of the court are published herewith. In consequence of this legislation the State of Pennsylvania has now two laws bearing on this subject. The bituminous law makes the employment age twelve years for both inside and outside workers, while the anthracite law makes the age for inside workers sixteen years and for outside workers fourteen years. It is evident that our mining laws are imperfect and unfair when they allow boys to work in and about the bituminous mines at twelve years of age, while requiring a minimum of sixteen years inside and fourteen years outside the anthracite mines. If our lawmakers understood that the duties of the boys employed inside of the mines in the anthracite and bituminous regions are identical, and that the danger to life and limb is about the same, their sense of fairness and justice would no doubt impel them to pass a law making the employment age the same in both regions. This Department recommends the enactment of one law making the employment age four teen years for boys employed in and about the anthracite and bituminous mines. If a uniform law, with fourteen years as a minimum, were passed, Pennsylvania would lead all other States and

countries in practical and sensible protective legislation on this important question.

Under the present anthracite law great injustice in many instances is done to heads of large families, and more particularly to poor widows, by reason of their boys being prohibited from entering the mines until they are sixteen years of age. They are by this extreme enactment deprived of a natural and much needed support. I am not, however, in accord with the bituminous law that makes the employment age twelve years. Both laws are radically wrong in this respect and should be amended on reasonable lines. In the anthracite region, as before stated, they bear unjustly upon the widows and heads of large families, and in the bituminous region they work injury to the boys by permitting them to go to work at too early an age. The bituminous workers contend, however, that the employment age should not be raised for the reason that there is no employment for the boys in that region except inside of the mines. In my opinion there is no reason whatever for making any distinction between the ages of boys outside and inside of the mines. The dangers that menace the boys in and about the anthracite breakers are perhaps more serious than those that menace the boys working inside the mines. If the boys tending doors in the mines would stay at their work, they would be practically safe from danger, but when there is a slackness in the work they frequently run away from the doors, and when they hear the cars coming, in their haste to return to their post of duty, they are apt to fall and be run over, or they are so late in opening the doors that the cars come upon them before they can get out of the way, and the result is often injury or loss of life to themselves or the drivers. The same observation will apply to boys in the breakers. If they could be compelled to remain at their working places when the breaker is running empty, instead of going about, they would incur very little danger. The fact is, however, that the minute the chutes are cleared the boys run loose, climb on top and over the safety guards, and frequently fall on or into the machinery, and are injured or killed. They also run and jump on moving cars, and in many other ways invite disaster. The management should impose the penalty of discharge upon a boy who leaves his work in the breaker or in the mine. The statistics for 1905, in the anthracite region, show that our of a total of 14 doortenders killed, 8 were between the ages of 16 and 17, 4 between the ages of 18 and 19, one was 59 years and one 74 years. Of the 31 drivers and runners killed inside, 19 were between the ages of 16 and 17, 13 between the ages of 18 and 21, and 8 between the ages of 22 and 37. Of the 24 slatepickers hilled, 18 were between the ages of 14 and 16, and 6 between the ages of 17 and 47. An analysis of these figures will show that in proportion to the number employed there were fewer fatal accidents among drivers and runners between the ages of 16 and 17, than among the employs from 18 to 37. This observation is also true in regard to the slatepickers. The statistics for 1905, in the bituminous region, show that 3 doorboys were killed between the ages of 14 and 16. Of the 38 drivers and runners killed inside, 18 were between the ages of 18 and 24, 12 between the ages of 25 and 35, and 8 between the ages of 36 and 53.

When the matter of the sanitary conditions is considered, the boy who is tending door inside of a mine has the advantage, as he is enabled to breathe purer air than the boy in the breaker, especially in the breakers that are known as "dry" breakers. The inside worker is also protected from the heat of summer and the cold of winter.

While the Department very earnestly advocates the employment age of fourteen years for boys inside the mines, it is also of the opinion that the employment age of drivers should be 16 years, runners 17 years, miners' laborers in the anthracite region and loaders in the bituminous region, 18 years, and miners in both regions, 21 years. It would tend to the safety, health and strength of the boys if they were allowed to begin work at fourteen years of age as doortenders, and after remaining for two years in that position they could be employed as drivers. The two years' experience would familiarize them with the work of drivers and runners, and they would also in that time have naturally become stronger physically for the more strenuous work of the laborer and miner.

AN ACT

Regulating the employment of minor children in or about any anthracite coal mine or colliery; prohibiting the employment of any child under the age of sixteen years inside of any anthracite coal mine; prohibiting the employment of any child under fourteen years of age in or about any anthracite coalbreaker or colliery, or the outside workings thereof; prohibiting the employment of any minor child, of any age, in or about either the inside workings of any anthracite coal mine or in or about any anthracite coal-breaker or colliery, or the outside workings thereof, unless the person, firm, co-partnership or corporation, employing said minor child, shall first obtain and file the employment certificate, as provided for by this act, and carry out the other duties provided by this act; fixing the duties of the common school superintendents; or, in the absence of such an officer, then that of the principal teacher of any city, borough or township, as relates to the issuance of said employment certificates and the other duties provided by this act; declaring what said employment certificate shall contain; providing for the form and wording of said employment certificates and the issuance of the blank-forms by the Department of Mines of this Commonwealth; making false swearing to any certificate provided for by this act to be perjury, and punishable as such; providing that the failure of any employer of minor children to produce the certificate required by this act, upon demand of the proper persons, shall be prima facie evidence of the illegal employment of said minor children; fixing the duty of truant or school attendance officers, as to carrying out the provisions of the act; giving to the common school superintendent, or, in the absence of such an official, then to the principal teacher of any city, borough or township, the same power to administer oaths or affirmations as is now given to notaries public, in all matters connected with the proper enforcement of this act; providing a penalty for the violation of the provisions of this act.

Section 1. Be it enacted, &c., That it shall be unlawful for any person, firm, copartnership or corporation to employ any minor child, under the age of sixteen years, inside of any anthracite coal naine, or to employ any minor child, under the age of fourteen years, in any anthracite coal breaker or colliery, or around the outside workings of any anthracite coal mine.

Section 2. It shall be the duty of the Chief of the Department of Mines of this Commonwealth, and the right of any citizen of this Commonwealth, in the name of the Commonwealth of Pennsylvania, upon any violation of the provisions of section one of this act, to bring suit in the court of common pleas of the county wherein said offense or violation occurred; and if, upon the trial of the case, the jury shall find that such violation did occur, they shall render a verdict against the offending party or parties, to an amount equal to ten dollars for each and every day said minor child or children were employed contrary to the provisions of this act; said amounts, when collected, to be paid into the State Treasury, for the use of the Commonwealth; and the State Treasurer shall return one-half of the

fine or fines so collected to the school-district in which the child, so illegally employed, resided.

Section 3. It shall be unlawful for any person, firm, copartnership or corporation to employ any minor child in or about any anthracite coal mine or colliery, or permit any such minor child to work in or around any anthracite coal mine or colliery, unless the person, firm, copartnership or corporation, employing said child or permitting said minor child to work, is furnished with and keeps on file an employment certificate, as hereinafter prescribed, and maintains a complete list of such children employed. Such lists and employment certificates at all times during the employment of such minor children, shall be sabject to the inspection of any common school superintendent, any truant or attendance officer of any school-district, the Chief of the Department of Mines of this Commonwealth, or any mine inspector, and shall be returned to each child when his or her employment shall cease.

Section 4. It shall be the duty of the city, borough or township common school superintendents within their various jurisdictions, and of the principal teacher, where no common school superintendent has jurisdiction, or their duly authorized deputies, to issue the employment certificates provided for in this act; but no principal teacher shall be authorized to issue said employment certificates within any district under a duly authorized common school superintendent. The district of such city, borough or township superintendent or principal teacher shall be the same as that in which the child seeking an employment certificate resides. Said employment certificate shall only be issued after the affidavits and documents bereivafter prescribed have received careful consideration by said common school superintendent or principal teacher, as the case may be, or their duly authorized deputies, as aforesaid; and no fee or emolument shall be charged for issuing the same.

Section 5. An affidavit, in duplicate, as to the age of any child under sixteen years seeking an employment certificate, shall be made by the father, mother, guardian or custodian of the child; and shall set forth the place and date of his or her birth, and the date and place of his or her baptism or circumcision, if any; shall be accompanied by a certificate of the registration of birth, baptism or circumcision of such child, as kept by any religious denomination; or by a certificate of the registration of his or her birth, as kept by any public authority, er, in the case of a foreign born child, a true copy of passenger manifest, passport or other official record, filed at the office of the Commissioner of lumigration, at the port of arrival.

Section 6. The employment certificate required by the third section of this act, shall consist of the affidavit as to age, made before

the city, borough or township common school superintendent, or principal teacher, as aforesaid, or their duly authorized deputies; and the other certificate, as herein provided, together with the certificate of approval by the said common school superintendent or principal teacher, as the case may be, or their duly authorized deputies, as hereinbefore provided, and shall be called employment certificate number one.

Section 7. The blank-forms of the several certificates shall be furnished, free of charge, by the Department of Mines of this Commonwealth, upon application by the proper persons, and shall be uniform throughout the State. A duplicate of each employment certificate shall be filled out and kept on file by the city, borough or township common school superintendent, or the principal teacher in localities not under the jurisdiction of any city, borough or township superintendent issuing the certificate, together with a certificate of the registration of birth, baptism or circumcision, or, in case of a foreign-born child, a copy of passenger-manifest, passport, or other official record, as herein provided by this act.

Section 8. False swearing to any affidavit given in accordance with the provisions of this act shall constitute perjury, and be punishable as such.

Section 9. A failure to produce to the common school superintendent, any truant or attendance officer, the Chief of the Department of Mines of this Commonwealth, or any mine inspectors, an employment certificate and the list required by this act, when requested so to do, shall be prima facie evidence of the illegal employment of any minor child whose employment certificate is not produced or whose name is not so listed; and it shall be the duty of the Chief of the Department of Mines of this Commonwealth, and the right of any citizen of this Commonwealth, in the name of the Commonwealth of Pennsylvania, upon any violation of the provisions of this act providing for the keeping and aling of said employment certificate and list of minor children, to bring suit in the court of common pleas of the county wherein said violation occurred; and if, upon the trial of the case, the jury shall find such violation actually did occur, they shall render a verdict against the offending party or parties to an amount equal to ten dollars for each and every day said minor child or children were employed centrary to the provisions of this act; said amounts, when collected, to be paid into the State Treasury for the use of the Commonwealth; and the State Treasurer shall rcturn one-half of the fine or fines so collected to the school-district in which the child, so illegally employed, resided.

Section 11. Truant or school attendance officers shall report any cases of such illegal employment to the city, borough or township superintendent, or to the principal teacher in localities not under

the jurisdiction of any city, borough or township superintendent, and to the Inspector of Mines of the district.

Section 12. The city, borough or township superintendent, and the principal teachers in localities not within the jurisdiction of any common school superintendent, and their duly authorized deputies, shall have the power to administer oaths and affirmations in all matters where persons desire to swear to, affirm or verify any documents or affidavits necessary to properly carry out the provisions of this act.

Section 13. Nothing in this act shall be so construed as to make the employers of minor children liable to the penaltics herein mentioned for the illegal employment of said minor children before the fifteenth day of October, Anno Domini one thousand nine hundred and five.

Section 14. All acts or parts of acts inconsistent with the provisions of this act be and the same are hereby repealed.

Approved-The 2d day of May, A. D. 1905.

SAML. W. PENNYPACKER.

JUDGE WHEATON'S OPINION.

The plaintiff is a minor over the age of sixteen years and is a resident and citizen of the school district of the borough of Plymouth, Luzerne county, Pennsylvania.

The defendant is the common school superintendent of the said school district.

Since the approval of the Act of the General Assembly of May 2, 1905, entitled "An act regulating the employment of minor children in or about any anthracite coal mine or colliery, etc.," the plaintiff applied to the defendant for an employment certificate, as contemplated by said act.

The defendant refused to issue such certificate.

Whereupon plaintiff applied for a writ of alternative mandamus, which was issued August 30, 1905.

To this, defendant made return, which was filed September 25, 1905.

To this return plaintiff demurred.

Demurrer filed September 26, 1905.

The legal questions thus raised are as follows:

First Does the said act of May 2, 1905, require the issuance of an employment certificate to a minor over sixteen years of age?

Second-Is the common school superintendent obliged to obey

the act, which in express terms denies him any compensation for the duties imposed upon him?

Third—Is the act constitutional?

Depends on Construction.

The answer to the first question depends entirely upon the construction of the language of the act.

It was without doubt, the intention of the Legislature to require employment certificates from all minor children above the age of fourteen years as a pre-requisite to their employment in or about any anthracite coal mine or colliery.

Section 3 provides that "it shall be unlawful for any person, firm, co-partnership or corporation to employ any minor child in or about any anthracite coal mine or colliery, unless the person, firm, co-partnership or corporation employing said child or permitting said minor child to work, is furnished with and keeps on file an employment certificate, as hereinafter prescribed, and maintains a complete list of such children employed."

The title of the act is, in part, "An act prohibiting the employment of any minor child, of any age, in or about either the inside workings of any anthracite coal mine or in or about any anthracite coal breaker or colliery, or the outside workings thereof, unless the person, firm, co-partnership or corporation employing said minor children shall first obtain and file the employment certificate, as provided for by this act," etc.

The legislative intent, thus clearly expressed, will not fail as to minor children above the age of sixteen years, unless the act has omitted to "prescribe" or "provided for" a method of obtaining employment certificates for such minors.

With due regard for the argument that this is a penal statute and must therefore receive a strict construction, the controlling principle is, that the clearly expressed intention of the Legislature may not be thwarted by a technical or too narrow construction of the language of the act.

Requirements of Act.

Section 6 provides that "the employment certificate required by the third section of this act"—which clearly covers all minors above the age of fourteen years—"shall consist of the affidavit as to age made before the city, borough or township common school superintendent, or principal teacher, as aforesaid, or by their duly authorized deputies; and the other certificate, as hereinafter provided, together with the certificate of approval, etc." * * * "and shall"

be called 'employment certificate number one,' or 'employment certificate number two,' as the case may be."

What affidavit as to age?

The act does not say the affidavit as to age, "as aforesaid"—which might mean the affidavit provided for in section 5 immediately preceding, for children under the age of 16 years only—but the "affidavit as to age made before the common school superintendent, etc., as aforesaid,"— to wit, the affidavit contemplated by section 4 of the act which broadly covers all the employment certificates provided for in the act and required by the third section.

This construction seems to be further strengthened by the form of affidavit prescribed, which in each case is entitled "affidavit of parent, guardian or custodian" and in each instance is sufficient to embrace all minors who, by the terms of the act, may be employed in or about the anthracite mines.

It is argued that the words in section 6, "the affidavit as to age," refer to section 5 of the act, and that since section 5 provides only for an affidavit as to children under the age of 16 years, that there is no basis for an employment certificate to a child over the age of 16 years, and therefore none is required.

Such construction ignores the language of section 6, that "the employment certificate required by the third section of this act shall consist, etc."—and ignores the fact that the statutory form of affidavit and certificate prescribed by section 6 is bread enough to cover all minors above the age of 14 years, and ignores the fact that the language is as fairly referable to section 4 of the act as to section 5, and it would override the manifest intent of the Legislature that employment certificates must be furnished by or for all minors permitted by the act to be employed in or about the anthracite coal mines.

If section 6 had provided that the "employment certificate required by the third section of this act shall consist of an affidavit as to age made before the city, borough or township common school superintendent, or principal teacher, as aforesaid," in form as follows: (Form as prescribe! following) it would not seem to leave much ground for arguing that there was no provision for minors above the age of 16 years.

That in effect is what the section does provide, and so construed it is consistent with the legislative intent as expressed in section 3 and in the title. We are ef opinion, therefore, that the act covers minors above the age of 16 years as well as those between the ages of 14 and 16 years, and provides a method for obtaining employment certificates for all minors above the age of 14 years seeking the particular employment covered by the act.

Office of Superintendent

The answer to the second question involved is, that the office of borough superintendent of common schools is one of purely legis lative creation, and the man who takes the office takes it with the burden of such additional labors as the Legislature may in its discretion see fit to impose from time to time. This infringes on no constitutional right of the possessor of the office, and is violative of no duty of the legislative body.

See Comm. vs. Moir 199 Pa. p. 549 and cases there cited.

As to the third proposition presented, (although the point has not been made) if the duties imposed upon defendant were purely ministerial, and he had no interest in the act beyond the mere performance of such duties, he would have no standing to set up the unconstitutionality of the act, and the question would not be before us for determination. But this defendant has an interest in the act.

The burden which is imposed upon him is substantial.

Upon the allegation of the answer admitted by demurrer, there are about two thousand minors in his district between the ages of 14 and 21 years of age, most of whom are employed in and about the anthracite coal mines and collieries.

This act will require defendant not only to devote his time, but to expend his own moneys, without hope of being reimbursed.

In addition to his interest in the act, growing out of the performance of its requirements, without compensation, which in effect is to diminish his salary or emoluments, his duties are not purely ministerial.

He is required to certify in each case that the applicant "can read and write legibly simple sentences in the English language."

This certificate is necessarily based upon an examination of the applicant. The method of examination, and the subject matter presented, within the general limits of the act, are left to the discretion and judgment of the superintendent and his determination as to the applicant's qualifications, is the result of his judgment, which, if fairly exercised, could not be controlled or reversed.

Duties not Ministerial

We are of opinion, therefore, that the defendant has such interest in the act, and that part, at least, of his duties thereunder are of such character, as to remove him from the class of purely ministerial officers, and give him standing to raise the question of the constitutionality of the act.

Absence of interest is the very ground of those decisions which declare against the right of a ministerial officer to urge the unconstitutionality of an Act of Assembly imposing duties upon him.

It is argued, that the act is unconstitutional: First, because it violates article 14, section 1, of the Constitution of the United States, which provides that "no State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty or property, without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws;"—that the language "the equal protection of the laws," means the protection of equal laws;—that the specific violations consist, in those provisions of the act of 1905, which require as pre-requisite to the employment of the class of minors created by the act, whose right to work is recognized, a different educational qualification on the part of some of the class, from that which is required of others of the same class;—that this inequality as to members of the same class of minors, is based upon the ability or inability of the individual members of the class, to produce "a certificate of the registration of his or her birth, baptism or circumcision, as kept by any religious denomination, or by any public authority; or in the case of a foreign born child, a true copy of passenger manifest, or other official record, filed at the office of the Commissioner of Immigration, at the port of arrival;"

That this clearly shows that the discrimination, which is claimed to be illegal and violative of the constitutional provision referred to, is not based upon any pretended exercise of the police power, and that even if it were so claimed, the very basis of the discrimination would show that it was an unlawful, unreasonable and arbitrary attempt to exercise such power.

Secondly—That the act violates the constitutional provisions aforesaid, because it requires certain educational qualifications before a minor can work in the anthracite coal mines, which is not required for any other kind of employment.

The argument on this branch of the question is based upon the alleged absence of any relation between an educational qualification and the dangers of the employment, and of any bearing of such qualification upon health or morals or public welfare, or other proper subject of legislation within the purview of the police power of the State, on account of which it is argued the discrimination against the particular employment is unlawful. We cannot sustain defendant's position in this regard.

Guardian of all Minors.

In considering the only question left, we must start out with a recognization of the fact that the Legislature is the guardian of all the minor children of the State.

It has power to act, and frequently does act, as parens patrice

on behalf of lunatics, minors and other incapacitated persons including adult women. Com. vs. Beatty, 15 Pa. Super. Ct. p. 5.

It has power to prohibit the employment of all minors in any and all places and occupations generally recognized as hazardous to person, health or morals, or where such employment would be detrimental to the public welfare.

It has the right to say that only such minors as are within or above certain ages may be employed in certain places and occupations.

Section 1 of the act under consideration is a fair illustration of the exercise of this right.

It has the right to say that every individual minor who is of the specified age which relieves him from the prohibition against working in a particular employment shall possess a certain amount of intelligence, evidenced by a certain educational standard, or shall be possessed of a certain standard of health or physical perfection, evidenced by an examination; but once having created the class and recognized its right to the employment in the particular occupation, the Legislature has no right or power to prevent some of the class from working by subjecting them to a restriction which it does not impose upon other members of the same class, particularly where the sole ground of the discriminating restriction is place of birth, or difference in color of skin, or inability to produce a certified copy of a record which may never have existed, or if it ever did exist, may have been lost or destroyed.

The Right to Work.

It needs hardly to be stated that, in the absence of statutory prohibition, the right of a minor child to work has existed since mankind began to work, and that it is a property right, the very foundation of the acquisition and enjoyment of property.

By the terms of section 6 of the act of 1905, those native born minors above the age of fourteen years who are able to produce a "certificate of religious record of birth, baptism or circumcision" or "the certificate of public registration of birth," and those foreign born children who are able to produce "the certificate of passport, or other official immigration record," to supplement the affidavit of parent, guardian or custodian, may work in or about the anthracite mines, etc., as the case may be, if they "can read at sight, and write legibly simple sentences in the English language."

Those minors above the age of fourteen years who cannot produce a "certificate of registration of birth, baptism or circumcision," or if "foreign born," cannot produce a copy of passenger manifest, passport or other official record, (immigration office), of age, may not work in or about the anthracite mines, etc., as the case may be, unless

they "can read at sight and write legibly simple sentences in the English language," and in addition thereto produce a certificate from the principal teacher of the last schools where they attended "which states that they have received instruction in reading, spelling, writing, English grammar and geography, and are familiar with the fundamental operations of arithmetic, to and including fractions."

There is also added to this latter class of minors another restriction contained in the form of approval,—P. L., page 348—v. hich is made by the act an essential part of the statutory form of employment certificate, that they shall have "regularly attended the public schools, or schools equivalent thereto, during the year previous to applying for such school record, and for the period required by the compulsory attendance laws of this Commonwealth"—that is, during seventy per centum of the school year.

Does not Apply Alike

. This would apparently prevent the issuing of an employment certificate under the act to any minor child above the age of fourteen years who cannot produce a certificate of registration of birth, baptism, etc., and who did not attend school last year, but would in no way affect the employment of those minor children above the age of fourteen years who did not attend school last year if they are fortunate enough to be able to produce a certificate, etc., of birth registration.

From a mere statement of these provisions of the act it is apparent that it does not apply alike to all of the class affected by it.

It does not afford to all the members of that class similarly situated the equal protection of the law.

It deprives certain members of the class of a vital property right, to wit, the right to labor in or about the anthracite coal mines, without due process of law,

This inequality of protection and deprivation of right is founded solely upon a frivolous and arbitrary ground of distinction, which cannot be defended as being the exercise of the police power of the State, or within the powers of general guardianship.

That clause of the Fourteenth Amendment which ordains that no State shall deny to any person within its jurisdiction the equal protection of the laws, undoubtedly prohibits discriminating and partial legislation by any State in favor of particular persons as against others in like condition.

Must Treat all the Same

It requires that legislation which prescribes regulations for the health, good order and safety of society, or is adopted to advance its

irterests and prosperity, shall treat alike all persons brought under subjection to it. Minneapolis Railway Co, vs. Beckwith, 129 U. S. p. 29.

Police regulations, though necessarily special in character, do not furnish ground of complaint if they operate alike upon all persons or property under the same circumstances and conditions.

Class legislation discriminating against some and favoring others is prohibited, but legislation which in carrying out a public purpose is limited in its application, if within the sphere of its operation it affects alike all persons similarly situated, is not within the amendment. Barbier vs. Connelly, 113 U. S. 27, 32.

The discriminations which are open to objection are those where persons engaged in the same business are subjected to different restrictions, or are held entitled to different privileges under the same conditions. Soo Hing vs. Crowley, 113 U. S. 703, 709.

For the reasons stated we are of the opinion that so much of the act as requires the furnishing of employment certificates, and as provides a method for obtaining the same, and imposes duties as to their issuance, and fines and penalties for employing those who shall not have procured them is violative of the Fourteenth amendment and is unconstitutional and void.

The first and second sections of the act are severable and are a valid and constitutional exercise of the police power, and they and the repealing clause may stand.

The prayer for a mandamus is refused at the cost of the petitioners.

SUPERIOR COURT OPINION

This is an appeal from judgment in favor of the defendant, a borough common school superintendent, on demurrer to his return to an alternative writ of mandamus, the object of which was to compel him to perform the duties prescribed by the act of May 2, 1965, P. L. 344, and to issue to the petitioner an employment certificate as provided by that act. In his return the defendant admitted the facts alleged in the petition but claimed that he could not be required to perform the acts: First, because the provisions of the act relative to the issuance of employment certificates do not include minors over 16 years of acc; second, because, being a public officer within the protection of section 13, article 3 of the Constitution of Pennsylvania, the enforcement against him of the provisions of the act whereby extremely onerous duties are imposed upon common school superintendents, for the performance of which compensation is explicitly denied by the act, would be in contra-

vention of that section of the Constitution; third, because the provisions of the act referred to under the first head are in violation of the first section of the fourteenth amendment of the Federal Constitution. The court below decided against the defendant upon the first two propositions, and while his counsel do not in their printed brief expressly assent to these conclusions, they have presented to us no argument in opposition to them. Therefore, and also because we all are of opinion that the court was right in sustaining the third proposition, we do not feel called upon to discuss them with a view to determining whether or not the case can be decided upon them without consideration of the federal question. In saying this we are not to be understood as intimating a doubt as to the correctness of the conclusions of the court upon the first two questions.

Prohibits Minors from Working.

Conceding, for the purposes of the case, all that the learned counsel for the appellant has so forcibly and ably argued in support of the claim that the Legislature has power to prohibit the employment of minors under a certain age in or about anthracite coal mines, and the power to prescribe certain educational qualifications as a condition precedent to the right of minors who have reached the specified age to be so employed, without imposing the same restrictions upon minors before engaging in other employment, there remains the serious objection, which has not been satisfactorily answered that the legislative provisions under consideration make a discrimination between minors of the same sex and age, the same mental and physical ability, the same experience in this avocation and the same educational qualifications, permitting members of one class to obtain employment certificates, without which no minor can be employed at all, upon much easier terms than are required of members of the other class. The first class consists of those who are able to produce in addition to the affidavit of parent, guardian or custodian, a certificate of registration of birth, baptism or circumcision as kept by any religious denomination, or a certificate of registration or birth as kept by any public authority, or, in the case of a foreign born child, a true copy of passenger manifest, passport or other official record on file in the office of the Commissioner of Immigration at the port of arrival. The second class consists of those who are unable to produce either of such certificates or copy of such official records.

Discrimination.

A member of the first class may obtain an employment certificate if he can read at sight and write legibly simple sentences in the

English language, while a member of the second class, although of the same age as the member of the first class, and perhaps older, not only (1) must be able to read at sight and write legibly simple sentences in the English language, but in addition to the affidavit of parent, guardian or custodian, is required (2) to produce a statement of the principal teacher of the last school which he attended certifying that he has received instruction in reading, spelling, writing, English grammar and geography and is familiar with the fundamental operations of arithmetic, to and including fractions, and (3) to produce such evidence as will enable the common school superintendent to certify that he regularly attended the public schools, or schools equivalent thereto, during the year previous to applying for such school record, and for the period required by the compulsory attendance laws of this Commonwealth. Proof that he is of the prescribed age, no matter how convincing, will not take the place of these additional prerequisites which a minor of the second class must show that he possesses in order to obtain an employment certificate. Doubtless the strict enforcement of these regulations applicable to this class would exclude from employment in or about the mines a very large proportion of minors of the second class under 14 years of age, and thus tend to prevent imposition on the part of such as to their age; but it is equally apparent that it would make it impossible for great numbers of minors between 14 and 21 years of age, who are able to read at sight and write legibly simple sentences in the English language, and who can prove conclusively that they are of the required age, to obtain an employment certificate until they have undergone school training for a considerable period in other branches of education. To require this in order to put them on an equal footing, as to the right to labor in or about anthracite coal mines, with the minor who is able to produce a certificate of registration of birth, baptism or circumcision, or copy of an immigration record, is to deny them the equal protection of the laws. The first section of the fourteenth amendment does not prohibit classification of the subjects of legislation, and the application of different regulations to different classes.

The Federal Law.

Nor are the courts warranted in declaring a classification made by the Legislature to be in conflict with the section, merely because in their judgment it is unnecessary, unwise or inexpedient. But although it is primarily a legislative question, it is not beyond the jurisdiction of the courts to inquire, and determine, whether the attempted classification transgresses constitutional limitations of legislative power. "While good faith and a knowledge of existing conditions on the part of the Legislature is to be presumed, yet to

carry that presumption to the extent of always holding that there must be some undisclosed and unknown reason for subjecting certain individuals er corporations to hostile and discriminating legislation is to make the protecting clause of the fourteenth amend ment a mere rope of sand, in no way restraining State action:" Justice Brewer in Culf, Colorado & Santa Fe R. R. Co. vs. Ellis, 165 U. S. 150. (17 Sup. C., Repr. 255.) Arbitrary selection can never be justified by calling it classification. Even in the most extreme cases cited in the appellant's brief it is expressly or impliedly conceded that while every presumption possible in favor of the validity of the legislative classification is to be made. yet where it is apparent that it is not based on any reasonable ground, or any difference which bears a just and proper relation to the subject with reference to which the classification is attempted, but is a mere arbitrary selection, it will not relieve the statute from the equality clause of the fourteenth amendment. The learned judge below reached the conclusion that the provisions of the act under consideration are, for that reason, in conflict with that clause, but that section 1, which makes it unlawful to employ any minor under 16 years inside of any anthracite ceal mine, or to employ any minor under 14 years in any anthracite coal breaker or colliery, or around the outside workings of any anthracite coal mine, and section 2, which prescribes the remedy fer violation of the provisions of section 1, are a valid and constitutional exercise of the police power, and are enforceable, notwithstanding the invalidity of the other provisions of the act relative to employment certificates. We concur in his conclusion and do not find that we can add anything further to what is clearly set forth in the opinion filed by him in support of it.

The judgment is affirmed.

THE AGES OF BOYS IN THE BREAKERS

During the latter part of 1965 a man by the name of Lovejoy made a tour of the anthracite counties inquiring into the ages of boys employed at the mines. In blazing head lines the daily papers published, on Mr. Lovejoy's authority, the statement that 1:.000 boys were found at work in and about the breakers who were under the legal employment age of fourteen years. A newspaper reporter called my attention to this report, and asked if it was true. I answered that to the best of my knowledge it was not true; that it was a very extravagant statement. One of the district inspectors was also asked regarding the report, and he deal, doing accuracy, stating that in his opinion there were not more than

2,000 boys who were below the employment age, and even they had certificates from their parents or guardians to show that they were over fourteen. The general public, by this most unreliable authority, was asked to believe that through the neglect of the mine inspectors 10,000 children were allowed to work in and about the breakers, in plain violation of the law. Owing to the wide-spread publicity given the statement, the Department decided to make a thorough investigation to see just what foundation it had to rest upon.

On the 12th of December the following circular letter was therefore mailed to each inspector:

"Dear Sir: I hereby instruct you to make a special visit to each breaker in your district, so that you may be able to make a report to the Department of Mines not later than December 31, 1905. Make a strict inquiry as to the ages of boys working in and about the breakers. See whether Section 1 of the Act of May 2, 1905, has been complied with. Insist upon all boys, wherever found, furnishing proper proof of age according to law. You are authorized to enter legal proceedings against all violators of this law, whether employer or employe. Make a report to this Department of the total number of boys over fourteen and under sixteen years of age employed in and about each breaker; also give the names of boys of doubtful age, with the address of their parents or guardians.

Please acknowledge receipt of this letter.

Very truly yours,
(signed) JAMES E. RODERICK,
Chief of Department of Mines."

The inspectors immediately made a thorough tour of their districts and reported the results to this Department. From these reports I am able to state that the total number of boys ranging from fourteen to sixteen years of age, employed in and about the breakers, is 8,124. Of this number the inspectors had some doubt as to 760 of the boys having reached the legal employment age, although each of them had presented the certificate required by law, which was on file, showing that he was over fourteen years of age. The boys of doubtful age number a little over 9 per cent. of the total number employed. It is very probable, however, that many of the 760 classed as doubtful by the inspectors are over fourteen. The difficult thing is to get at the correct ages of these boys, as at least 75 per cent. of them were born in foreign countries. Besides this, the Department has neither the time nor the money to spend in prosecuting the parents or guardians of these children. If the next Legislature could be induced to appropriate about \$50,-000 for this purpose, the Department could enter proceedings to get at the true facts in the matter, as it has in its possession the names and addresses of the parents and guardians of children of doubtful age.

One instance may be cited here of the difficulty the Department meets with in its efforts to prosecute the violators of the law. On the 20th of October last the following letter was received at this Department from The Pennsylvania Society to Protect Children from Cruelty, Philadelphia:

Yours very truly,
SCOTT NEARING,
Assistant Secretary."

The Department at once took this matter up with the inspector of the district, stating the facts and requesting that he investigate and report at once. On the following day I made a personal investigation and found that the boy was working as stated, but had provided the foreman with a certificate showing that he was over fourteen years of age. I felt satisfied, however, notwithstanding the certificate, that we had a case against the boy and the Company and that the Secretary who had written the Department had the necessary proof. An attorney was therefore engaged to prosecute the coal company employing the boy, for violation of the law. Proceedings were entered and the writ was made returnable December 8, but the attorney said it would be impossible to have the case brought to trial before March term, 1906. The Department not being satisfied with this slow procedure, wrote the attorney asking him if there was no way under the law by which a more speedy trial could be had. At this juncture of the case the attorney for the Commonwealth was confronted by an affidavit from the father of the boy, presented by his attorney, which read as follows:

This affidavit was sworn and subscribed to October 24, 1905, before Samuel Beard, justice of the peace. I at once sent a copy of this affidavit to Mr. Nearing, who had made the original complaint, stating in my communication as follows:

On the 28th of December I received a letter from Mr. Nearing, with an affidavit enclosed, signed and sworn to by an agent of The

Pennsylvania Society to Protect Children from Cruelty, showing that the parents of the boy mentioned had, on the 23rd of August, 1905, informed him that the boy who was working in the ——breaker was born December 28, 1891. As the oath of the father would have more weight than the oath of the agent of the Society, the Department felt that it could do nothing else than drop the case and pay the attorney's fee and expenses.

DANGERS OF MINING COAL

The mining of coal is a most dangerous vocation; the lives of the men engaged in it are always in jeopardy, and yet the exercise of care and judgment on the part of both employer and employe would eliminate much of the danger. It is true that the managers of the mines of Pennsylvania have adopted rather stringent rules in their efforts to safeguard the miners, and have spent large sums of money to make the mines safe. But the fact still remains that the chief object of the management is to produce the greatest amount of coal at the smallest cost. The employes inside of the American mines are producing more coal per person than the employes of the mines in any European country, and are also earning more money than the foreign employes. With all this strenuous effort, it may still be doubted whether the American employer of labor in the coal mines is earning any larger dividends on his investment than the European employer of similar labor. The question is, Does this combined effort on the part of employer and employe to increase the production, add to the perils that already surround this occupation? If so, it is time to call a halt on both employer and employe, and insist that they give greater attention to the safeguarding of the lives of the people in the mines. The dangers cannot be entirely eliminated, but they can be lessened greatly if the common and well known precautions are taken. The roofs should be made secure, care should be taken in handling explosives, in dealing with gaseous mines, in running the mine cars, in operating the machinery of the hoisting shafts and the machinery in and about the breakers. Undoubtedly many accidents could be prevented if greater precautions were taken. From my experience of many years I am of the opinion that nothing but stringent laws that will reach both employer and employe, with penalty clauses attached that can be enforced, will prevent the sacrifice of lives in the mines of Pennsylvania. There can be no good reason advanced why the American operator and the American miner cannot be made to observe laws made for their mutual benefit and protection. I would again suggest that a commission of experts be appointed to prepare a mining law that will be comprehensive enough to cover the needs of both the anthracite and bituminous mines. The law should carry with it the power to punish all violators of its provisions.

FATAL ACCIDENTS

The total number of fatal accidents in the anthracite region during the year was 644. The greatest loss of life was caused by falls of coal, slate and roof. Of the 551 fatal accidents that occurred inside of the mines, 295, or about 53.54 per cent., were due to this cause; mine cars caused 82, or 14.88 per cent.; explosions of gas and suffocation by gas 43, or 7.8 per cent.; explosions of powder and dynamite 16, or 2.91 per cent.; premature blasts 44, or 7.99 per cent.; falling into shafts 43, or 7.8 per cent.; miscellaneous causes, 28, or 5.08 per cent. The number of fatal accidents outside of the mines was 93, or 14 per cent. of the total number. It seems incredible that 23 persons should be killed by the cars, 33 by machinery, and 11 by suffocation, on the surface. If even ordinary precautions had been taken by the victims themselves, or by those who were in charge of the breakers and machinery, a great majority of these lives would have been spared. The reports of the inspectors show that the breakers are generally constructed so that they are practically safe, the dangerous parts being carefully guarded. Nevertheless, every year shows a recurrence of a large number of fatalities. Those killed by cars are generally the victims of their own carelessness; those smothered in the chutes are sometimes the victims of their own carelessness, but frequently of the carelessness of the persons in charge of the work. Whenever a person in charge is so regardless of the lives of those under him as to send an em plove into the chutes to shovel back the coal, without taking the precaution to protect him from the loaders under the breaker, he should be deemed guilty of manslaughter and punished accordingly.

The occupations of the 551 victims inside of the mines were as follows: Miners 308, or 55.9 per cent.; miners' laborers 148, or 26.86 per cent., a total of 456, or nearly 83 per cent. of the total number killed inside, or 6.16 killed for every 1,000 miners and miners' laborers employed. The number of drivers and runners killed was 31, or 5.63 per cent., or 2.57 for every 1,000 employed; doorboys and helpers 14, or 2.54 per cent., or 4.26 for every 1,000 employed; company men 28, or 5.08 per cent., or 2.7 for every 1,000 employed; 1 mine foreman and 2 fire bosses, or .54 per cent., were also killed, or 1.8 for every 1,000 employed, and 19 other employes, or 3.45 per cent.

The occupations of those killed outside the mines were as follows: Slatepickers 24, or 1.43 for every 1,000 employed; engineers and firemen 6, or 1.06 for every 1,000 employed; carpenters and bracksmiths 5, or 1.83 for every 1,000 employed; other employes 58. or 2.17 for every 1,000 employed.

FATAL ACCIDENTS BY FALLS AND BY GAS

The table herewith gives the number of lives lost by falls of coal, slate and roof, and by explosions of gas and suffocation by gas, in each anthracite and bituminous district during the year. In the anthracite mines 295 lives were lost by falls and 43 by gas, or about seven times as many by falls as by gas. In the bituminous mines 298 lives were lost by falls and 39 by gas, or about eight times as many by falls as by gas. The First, Fifth, Twelfth and Sixteenth Bituminous Districts were the only districts in which lives were lost by gas. This table has been prepared to show the preponderance of accidents that occur by falls of coal, slate and roof, over those caused by gas explosions and suffocation by gas. It is earnestly hoped that the attention of the next Legislature will be directed to this very important subject, so that some law may be passed, or some of the present laws amended, to make it compulsory on the part of managers and miners to be more careful of the lives of the persons actually engaged in the mining and loading of coal, by insisting that each place be properly timbered and made safe according to law.

| Anthracite | | | Bituminous | | |
|--|--|---|---|---|--------|
| Districts | By falls | By gas | Districts | By falls | By gas |
| First, Second, Third. Fourth, Fifth. Sixth. Seventh, Elghth, Ninth, Tenth, Eleventh, Televenth, Twelfth Twelfth Tourteenth, Fourteenth, Fifteenth, | 31 21 19 18 34 16 26 26 20 9 16 17 18 21 3 | 1 1 5 6 2 2 3 3 1 5 7 7 3 6 1 | First, Second, Third, Fourth, Fifth, Sixth, Seventh, Eighth, Ninth, Tenth, Eleventh, Twelfth, Twelfth, Fourteenth, Fourteenth, Fifteenth, Sixteenth, Sixteenth, | 22 36 4 7 15 17 18 7 20 14 25 18 21 16 15 38 | 16 |

FATAL ACCIDENTS 1870-1905

The anthracite mine law of Pennsylvania was enacted early in 1870 as a result of the calamity in the Avondale mine in the month of September, 1869, by which 179 persons lost their lives through inhaling the smoke and fumes from a burning breaker. This breaker was built immediately above the shaft, and the mine had no second opening or escape shaft. Before the year 1870 there were no official records kept of the accidents in and about the mines, although accidents were of frequent occurrence and disastrous both to life and property. In proportion to the small number of employes and the small number of mines in operation at that time, the fatalities were very numerous. The act of 1870 was amended in 1885, and again in 1891, but, notwithstanding the legislative endeavor to give greater protection to the workers in and about the mines, the number of accidents has constantly increased.

During the period 1870 to 1879 the anthracite counties were divided into six inspection districts, with six inspectors. The production of coal in 1879, the tenth year of operation under the act of 1870, was 27,711,250 tons; the number of fatal accidents in and about the mines was 262. These figures show that for each life lost 105,768 tons of coal were produced, and 3.81 persons killed for each thousand employed. Between 1879 and 1889 an additional inspector was appointed, making the number seven. The production of coal in 1889, the last year of the second decade, was 38,973,950 tons; the number of fatal accidents in and about the mines was 397, showing that for each life lost 98,171 tons were produced, and 3.32 persons killed for each thousand employed. In 1899, the last year of the third decade, another inspector was added, making the number eight, an addition of two in thirty years. In 1899 the production was 54,034,224 tons; the number of fatal accidents in and about the mines was 461, showing that for each life lost 117,211 tons were produced, and 3.28 persons killed for each thousand employed. During the years 1899 to 1905, a period of six years, the number of inspectors was increased from eight to fifteen. In 1905 the production was 70,220,554 tons; the number of fatal accidents in and about the mines was 644, showing that for each life lost 109,038 tons were produced, and 3.83 persons killed for each thou sand employed. The increase in production from 1879 to 1905 was 153 per cent.; the increase in fatal accidents was 146 per cent. The increase in the number of inspectors from eight to fifteen became effective January 1, 1903, but it will be seen that during the years 1903 to 1905 inclusive the number of accidents increased, notwithstanding the augmented force of inspectors, and while it is not to be inferred that the increase in fatalities was due to the increased

number of inspectors, it is nevertheless a fact that the hoped-for decrease in fatalities was not realized. In order to reduce the accidents there must be more frequent inspection by foremen and assistants. This inspection, in my opinion, should be made daily in every working place in the mine, and there should also be insistence on the part of the foremen and assistants that the workmen take proper care of themselves when engaged in the dangerous labor connected with coal mining. These foremen and assistants should see, as directed by law, that no incompetent persons are allowed to mine coal. The workmen, especially the miners, should see that their working places are made safe before doing any work. They should by all means take care of the lives of the laborers put under their care, and when they neglect to do so they should be punished by dismissal and by prosecution for criminal negligence.

In the early seventies the annual reports of the inspectors were poorly edited, no care being taken to make them accurate. It has therefore been difficult to get reliable statistics. Yet through my personal knowledge of the anthracite counties at the time, especially Luzerne and Lackawanna, I have been able to unravel some of the apparent inconsistencies in these reports. I have compiled the following accidents by decades, which will enable the reader to get at the facts readily. During the first ten years, 1870 to 1879, 43 persons lost their lives by falling into shafts, 27 by falling into slopes, 11 by falling into manways, 18 by the breaking of hoisting ropes and the failure of safety appliances to work, 1 by the engineer losing control of his engine. During the second decade, 1880 to 1889 inclusive, 72 persons lost their lives by falling into shafts, 33 by falling into slopes, 4 by falling into manways, 3 by the breaking of hoisting ropes and the failure of safety appliances to work, 5 by engineers losing control of their engines. During the third decade, 1890 to 1899 inclusive, 82 persons lost their lives by falling into shafts, 43 by falling into slopes, 41 by falling into manways, 9 by the breaking of hoisting ropes and the failure of safety ap pliances to work, 3 by engineers losing control of their engines. During the six years 1900 to 1905 inclusive, of the fourth decade, 55 persons lost their lives by falling into shafts, 42 by falling into slopes, 23 by falling into manways, 22 by the breaking of hoisting ropes and the failure of safety appliances to work, 14 by engineers losing control of their engines. Thus we find that during the thirtysix years 1870 to 1905 inclusive, 252 persons lost their lives by falling into shafts, 145 by falling into slopes, 79 by falling into manways, 52 by the breaking of hoisting ropes and the failure of safety appliances to work, and 23 by engineers losing control of

their engines. This shows that an average of 7 each year was killed by falling into shafts, 4 by falling into slopes, 2 by falling into manways, 1.44 by the breaking of hoisting ropes and the failure of safety appliances to work, and .64 by engineers losing control of their engines. When we consider that tens of thousands of persons have been lowered and hoisted at the anthracite shafts each day for the past thirty-six years, it seems that the safest place in a coal mine is on the cage in the shaft. I think the managers of our coal mines are to be congratulated for the care they have taken of the lives of their employes in this respect. I may also state here that no actual safety can be reached by depending on the safety appliances, especially in shafts where the speed often exceeds 1,000 feet per minute, as something—guides or buntons—must give way in case of the breaking of a rope. There is no great reason for the breaking of the ropes in the hoisting shafts, if the ropes and ap pliances are properly cared for as directed by law and changed at regular intervals according to the amount of work performed. The law provides that an engineer placed in charge of "an engine whereby persons are hoisted or lowered into any mine, shall be a sober and competent person, of not less than twenty-one years of age. He shall work his engine slowly and with great care when any person is being lowered or hoisted, and no one shall interfere with or intimidate him while in the discharge of his duties. He shall be in constant attendance for that purpose during the whole time any person or persons are below ground." If hoisting engineers do their duty as prescribed by law, there is no excuse whatever for losing control of their engines, unless some unforeseen accident happens to the engine or machinery under their charge, and for such emergencies there should be safety appliances attached to all engines, as provided by law.

It is to be regretted that we cannot commend the foremen and superintendents for their care of the workmen while actually engaged in the mining of coal at the face of the workings. Statistics show an awful loss of life among miners and miners' laborers during the past twenty-five years, 1881 to 1905 inclusive. During that time 4,424 miners and 2,452 miners' laborers, a total of 6,876, were killed.

RESPONSIBILITY FOR ACCIDENTS

The Department has spent considerable time and effort in its endeavor to fix the responsibility for the many accidents that occur in the anthracite and bituminous mines. From the reports of the inspectors it is conclusively shown that more than half of the fatalities are due to negligence, carelessness, recklessness and ignorance

on the part of the victims. In the bituminous region, for the year 1905, 64 per centum of the accidents was due to these causes; 58 per centum is charged to the victims themselves, and 6 per centum to other employes. Only 36 per centum of the accidents is classed as unavoidable. In the anthracite region 58 per centum of the accidents was due to these causes; 48 per centum is charged to the victims themselves, and 10 per centum to other employes, 42 per centum being classed as unavoidable.

An effort has also been made to classify the accidents inside the mines with reference to the nationality of the vicitms. In the anthracite mines during the year 1904 the number of English-speaking miners (including Americans, English, Welsh, Scotch, Irish and Germans) killed was 88; other nationalities 145. During 1905 the number of English-speaking miners killed was 98; other nationalities 210. During 1904 the number of English-speaking miners' laborers killed was 23; other nationalities 122. During 1905 the number of English-speaking miners' laborers killed was 32; other nationalities 116.

In the bituminous mines during 1904 the number of English-speaking miners killed was 46; other nationalities 162. During 1905 the number of English-speaking miners killed was 56; other nationalities 205.

The Department is unable to say what proportion of the employes in the mines are English-speaking persons, but it is evident that the fatalities among the employes designated as non-English speaking are largely in excess of their proportionate number. This is not surprising, however, and will continue to be the case until these people acquire sufficient knowledge of the English language to understand orders given by foremen and thus be able to protect themselves in the performance of their duties. An effort will be made during 1906 to ascertain the number of employes of each nationality inside and outside the mines of the State, and it is hoped that the superintendents and managers will aid the Department in obtaining this information, which we consider important.

Number of employes inside and outside the mines; number of fatal accidents; number of fatal accidents per 1,000 employes; number of tons of coal mined per fatal accident inside, 1881 to 1905 inclusive.

| Years | Number of employes inside of mines | Number of fatal accidents inside | Number of lives lost inside per 1,000 employed | Production of coal in tons of 2,000 pounds for each life lost inside | Number of employes out- side of mines | Number of fatal accidents outside | Number of lives lost outside per 1,000 employed | Number of lives lost inside and outside per 1,600 em- |
|---|--|--|---|---|--|---|---|--|
| 1881, 1882, 1883, 1884, 1885, 1885, 1887, 1889, 1890, 1891, 1895, 1896, 1897, 1898, 1899, 1990, 1901, 1902, 1903, 1904, 1905, | 45,619 50,764 50,268 61,922 62,901 67,716 63,930 67,716 74,178 73,613 76,569 82,088 86,287 87,901 89,251 89,251 91,171 92,167 94,140 98,434 98,377 102,655 110,362 | 234 250 274 286 290 210 210 317 339 323 372 361 388 368 374 398 375 361 378 398 318 340 372 361 372 361 372 361 372 361 372 361 372 372 372 372 372 372 372 372 372 372 | 5.13 4.92 4.87 4.62 4.61 3.69 4.03 4.03 4.57 4.39 4.86 4.40 4.49 4.19 3.77 4.54 3.95 4.22 3.88 3.95 4.24 4.22 3.88 4.24 4.24 4.24 4.24 4.24 4.24 4.24 4 | 146, 165 140, 230 137, 764 127, 513 131, 834 165, 046 156, 046 142, 763 133, 606 141, 903 136, 188 138, 497 160, 823 146, 128 146, 128 147, 128 148, 128 148 | 30, 412 31, 436 35, 153 39, 151 37, 419 39, 114 38, 801 43, 536 46, 396 46, 739 48, 212 51, 682 52, 008 54, 454 65, 299 53, 745 51, 249 48, 437 49, 217 49, 762 49, 772 50, 983 | 39 411 44 42 43 46 47 57 68 56 57 67 72 51 72 52 99 99 | 1.28 1.30 1.39 1.17 1.12 1.10 1.19 1.08 1.28 1.19 1.20 1.18 1.23 1.30 .95 .99 1.49 1.07 1.46 1.11 1.11 1.15 1.94 1.79 | 3.59 3.51 3.53 3.28 3.31 2.71 2.97 7.2.98 3.32 3.15 3.31 2.93 3.19 2.93 3.21 3.31 2.83 3.28 3.28 3.28 3.32 3.31 3.31 3.31 3.31 3.31 3.31 3.31 |

^{*}Year of the big strike, when an average of only 116 days was worked by the collieries.

Number of mines and miners' laborers employed in the mines; number killed and ratio of each class killed per 1,000 employed; average number of days worked by breakers; average production per day worked by breakers, 1881 to 1905 inclusive.

| Years | Number of miners employed | Number of miners killed | Number of miners killed per 1,000 employed | Number of miners' labor- ers employed. | Number of miners' labor- ers killed. | Number of miners' laborers killed per 1,000 employed | Average number of days worked by breakers | Average production per day worked by breakers, gross tons |
|--|---|--|--|--|--|--|--|---|
| 1881 1882, 1883, 1884, 1885, 1886, 1887, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1900, 1901, 1902, | 22, 809 22, 843 25, 319 27, 100 28, 305 25, 970 29, 558 31, 554 28, 935 30, 779 33, 357 34, 553 37, 603 36, 832 37, 804 36, 832 37, 804 36, 832 36, 833 37, 804 36, 833 | 114 135 136 132 160 131 131 102 169 194 136 189 195 218 179 204 216 189 224 114 222 233 233 308 | 4.99 5.91 5.37 4.87 5.65 5.64 3.45 4.89 6.14 5.18 5.51 5.64 5.18 5.51 5.92 3.13 5.92 5.92 5.92 5.92 | 16, 726 15, 229 16, 879 19, 606 20, 128 17, 548 21, 952 19, 368 18, 620 22, 110 22, 853 23, 942 24, 633 26, 350 27, 27, 270 22, 150 32, 946 24, 613 26, 265 27, 27, 533 31, 217 31, 967 | 70 566 67 811 886 88 68 87 87 79 95 119 120 108 108 114 99 121 114 95 122 122 110 143 | 4.19 3.68 3.97 4.13 4.27 3.98 3.25 3.96 4.08 5.10 6.07 5.43 4.73 3.80 4.67 5.09 3.63 5.15 4.75 3.96 4.64 4.64 4.60 4.64 4.63 | 221 218 232 294 192 204 196 2 8 218 213 202 202 202 202 175 187 170 151 151 151 151 151 152 203 204 204 213 205 206 213 207 207 207 207 207 207 207 207 207 207 | 138, 181 143, 584 145, 272 169, 590 167, 331 177, 437 180, 981 191, 002 197, 837 191, 268 2 8, 339 226, 428 233, 562 260, 035 2 11, 900 3 0, 310, 282 790 3 12, 221 301, 867 291, 007 307, 210 7318, 233 318, 359 208, 491 337, 599 |

^{*}Strike during the year. †Washeries worked during the strike. The time was not computed in the average days worked.

Analyses of Pennsylvania Arthracite Coal. Made by the United States Second Geological Survey.

| leui fuei | Carbon ratio. | 19.73 17.83 19.92 | 28.33 | 1922 2012 2013 2013 2013 2013 2013 2013 20 | 50000000000000000000000000000000000000 |
|----------------------------|-----------------------|---------------------------------|---|---|--|
| Percentage of stituents of | Volatile matter | 4.92 | 855944844 85594884 | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 24446-4 846245 846245 |
| Percer | Fixed carbon | 95.08 94.69 95.22 | 8.88.88.88.88.88.88.88.88.88.88.88.88.8 | 98 98 98 98 98 98 98 98 98 98 98 98 98 9 | 25.88.88 25.88.88 25.88.88 25.88.88 25.88.88 |
| | Specific grav.ty | 1.61 1.56 1.54 | 1.59 1.59 1.60 1.60 1.61 1.61 | 1.65 1.65 1.65 1.65 1.66 1.66 1.66 | 121 121 121 121 121 121 131 |
| Physical Properties. | Color of Ash | Reddish gray, Gray, Gray, | Cream, Cream, Reidish-gray, Cream, Cream, Cream, Light cream, | Reddish-grav. Cream. Reddish-gray. Reddish-gray. Reddish-gray. | *Red. Fream. Light creem. Creem. Dark creem. |
| | ЧsА | 8.54 | 1.30.04.10.10.10.10.10.10.10.10.10.10.10.10.10. | 50.00 10.00 | 8.0.0.0.4 8.0.0.0.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1. |
| alyses | Sulphur | .73 | 2010 10 10 10 10 10 10 10 10 10 10 10 10 | 1.55 1.55 1.01 1.01 1.01 1.01 | हात् _{न्} हात् भ |
| Chemical Analyses | Fixed carbon | 83.96 80.51 85.32 | 88 8 8 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 88888888888888888888888888888888888888 | 58.28.88.8 58.4 65.8 58.4 65.8 |
| Chem | Volatile matter | 4.34 | 24.6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2 | 4.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0 | # 4 4 4 6 6 6 12 1 7 1 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 |
| | Water | 3.67 | 848448286 | 00000000000000000000000000000000000000 | 6,6,12,6,2,0,2,0,2,0,2,0,2,0,2,0,2,0,2,0,2,0, |
| | Colliery and Coal Bed | | Jeddo Nos. 2 and 4, Mammoth bed, Electrade No. 2, Mammoth bed, Colevatine Nos. 1 and 2, Wharton bed, Spring Meuntain No. 4, Jeansville, Mammoth bed, Colevatine Nos. 1 and 2, Mammoth bed, Colevatine Nos. 1 and 2, Mammoth bed, Spring Meantain No. 4, Jeansville, Wharton bed, Spring Hook No. 5, Syrktown, Mammoth bed, Spring Brook No. 5, Wharton bed, | St. Nicholas, middle spill, Mammoth bed, St. Nicholas, bottom spilt, Mammoth bed, St. Nicholas, Buck Mountain bed, Gilberton, Seven-foat bed, Gilberton, Seven-foat bed, Gilberton, Seven-foat bed, Draper, at Gilberton, Manmoth bed, Draper, Primrose bed, Turkey Run, at Shenandoab, Mammoth bed, Kohmoor, at Shenandoab, Mammoth bed, Kohmoor, at Primrose bed, Kohmoor, Primrose bed, Mammoth bed, | CLehigh Coal and Navigation C's Colleries, Panther Creek No. 3 Mammeth hed Ch. No. 4 Mammeth hed Ch. No. 4 Mammeth bed Ch. and El. No. 5 Mammeth bed Ch. and El. No. 6 Mammeth hed Ch. and El. No. 6 Mammeth hed Ch. and El. No. 6 Red Ash hed Ch. and El. |

.White specks.

| 23.27 | 19.20 | 16.64 | 21.13 | 20.74 | 19.35 |
|------------------------------|-------------------------------|-------------------------------|---|---|---|
| 4.12 | 4.95 | 5.67 | 4.52 | 4.60 | 4.92 |
| 95.88 | 1.67 95. 5 4.95 19.20 | 94.33 | 95.48 | 95.40 | 80.08 |
| 1.62 | 1.67 | 1,68 | 1.66 | 1.64 | 1.67 |
| 5.93 Cream, | 87 Gray, | 13.74 Reddish-gray, | 9 Cream, | .31 Reddish-gray, | White, |
| 5.93 | 10.87 | 13.74 | 9.79 | 7.31 | 10.38 |
| . 42 | .62 | 2. | .42 | 1.42 | ·4. |
| 3.32 3.71 86.1 | 81.51 | .7.08 | 3.93 83.11 | 84.17 | 4.24 82.08 |
| 3.71 | 4.1 | 4.68 | 3.93 | 4.(5 | |
| | 2.74 | 2.70 | 2.13 | 03 | 2.82 |
| No. 8 Mammeth bed (D and E), | No. 10 Mammoth bed (D and E), | No. 11 Mammoth bed (D and E), | No. 10 Mammoth (D and E), bony coal, 1, | No. 10 Mammoth (D and E), bony coal, 2, | Vo. 10 Mammoth (D and E), bony coal, 3, |

Average Composition of Pennsylvania Anthracite.

| | | Chem | Chemical Analyses | ses | | Percentag | Percentage of Constituents of Fuel | ituents of |
|--|--|---|---|---|---|---|---|---|
| Bed—Field | Water | Volatile matter | Fixed carbon | Sulphur | ųs¥ | Fixed carbon | Volatile matter | Carbon ratio. |
| Wharton, Eastern Middle, Mammoth, Dastern Middle, Mammoth, Western Middle, Mammoth, Western Middle, Buck Mountain, Western Middle, Buck Mountain, Western Middle, Mammoth, Southern, Mammoth, Southern, Mammoth, Southern, Mammoth, Southern, Mammoth, Southern, | 2. 713 2. 541 2. 541 3. 404 5. 687 5. 687 1. 243 1. 243 | 8.0.80 8.0.084 8.0.084 8.115 8.125 8.3.949 8.100 8.100 | 86.404 88.1579 81.5379 87.580 87.888 87.888 888 888 | .585 .489 .499 .899 .506 .506 .512 .641 1.031 | 6.218 5.922 10.654 11.078 4.379 11.232 8.138 6.233 | 96.55 96.55 96.55 96.55 96.55 96.55 96.51 96.01 96.01 96.01 96.01 | 00 00 4 4 4 4 4 4 70 00 4 4 6 6 6 4 70 00 00 00 00 00 00 00 00 00 00 00 00 | 28.07 22.19 22.19 20.93 20.93 19.06 10.09 |

*HISTORICAL NOTES OF THE ANTHRACITE INDUSTRY.

- 1820 Lehigh Coal & Navigation Co, began mining and shipping coal from Summit Hill region. Canal opened Mauch Chunk to Easton, 1829; White Haven to Mauch Chunk, 1837.
- 1825 Schuylkill Canal was completed from Mt. Carbon to Philadelphia.
- 1829 Delaware & Hudson Canal Co. began transporting coal from Carbondale region.
- 1831 Nesquehoning R. R. and Plane built.
- 1831 Morris Canal opened Phillipsburg to Newark; opened to Jersey City, 1836. Leased by Lehigh Valley R. R. Co., 1872.
- 1832 Little Schuylkill R. R. began transporting coal from Tamaqua region.
- 1832 Shamokin Division Northern Central Ry, originally opened.
 Re-organized 1851. Leased to Northern Central Ry.
 1863.
- 1833 Delaware Division Pennsylvania Canal opened.
- 1834 Wyoming and State Canals opened.
- 1837 Shipments of coal began from Beaver Meadow region.
- 1837 Shipments of coal began from Pine Grove via Union Canal.
- 1837 Morris & Essex R. R. opened. Leased to D., L. & W. R. R. Co., 1869.
- 1838 Shipments of coal began from Hazleton region.
- 1839 Summit Branch R. R. opened. Leased to S. B. R. R. Co., 1866.
- 1839 Shipments of coal began from Shamokin region westward.
- 1839 Shipments of coal began from Lykens Valley region westward.
- 1840 Shipments of coal began from Buck Mountain region.
- 1840 Quakake R. R. opened. Extended and opened to Mt. Carmel, 1862.
- 1842 Philadelphia & Reading R. R. began transporting coal through to Pt. Richmond.
- 1846 Shipments of coal began from Wilkes-Barre region via L. & S. R. R. Planes and Lehigh Canal.
- 1850 Pennsylvania Coal Co. began business.
- 1852 Central R. R. of N. J. opened from Elizabeth to Easton. Third rail from Hampton Junction laid 1856.
- 1854 Delaware, Lackawanna & Western R. R. Co. began mining and shipping.
- 1855 Lehigh Valley R. R. Co. began transporting coal to Phillips burg. Opened to Perth Amboy in 1875.
- 1856 Trevorton R. R. opened.
- 1857 Belvidere Delaware R. R. began transporting coal.

^{*}From The Coal Trade, 1905,

- 1857 North Pennsylvania R. R. opened. Leased to Philadelphia & Reading R. R. Co. May 1st, 1879.
- 1858 Lackawanna & Bloomsburg R. R. opened; leased to D., L. & W. R. R. Co. 1873.
- 1858 Mining began in McAuley Mountain region.
- 1864 Stove coal sold at auction in July for \$12.03 per ton.
- 1868 Lehigh & Susquehanna R. R. opened to Phillipsburg. Leased to C. R. R. of N. J., 1871.
- 1869 The Coal Trade Journal established, April 21st.
- 1869 Pennsylvania & New York R. R. opened to Waverly.
- 1870 Nesquehoning Valley R. R. and Panther Creek Tunnel opened.
- 1870 Sunbury, Hazleton & Wilkes-Barre R. R. opened. Leased by Pa. R. R., 1878.
- 1871 Erie R. R. Co. began mining and shipping coal.
- 1873 Philadelphia & Reading Coal & Iron Co. began mining and shipping coal.
- 1874 Lehigh & Wilkes-Barre Coal Co. began operations.
- 1879 Philadelphia & Reading R. R. Co. leased Delaware & Bound Brook R. R. May 1st.
- 1879 Stove coal sold at auction in September for \$2.36 per ton.
- 1882 North & West Branch R. R. opened November 23rd.
- 1883 First Reading-Jersey Central lease.
- 1884 Thomas Dickson died, R. M. Olyphant elected president D. & H. C. Co.
- 1885 Pennsylvania mine law put in force.
- 1886 Jersey Central arranged to resume independence on January 1st, 1887.
- 1887 Important development of Lake and Western trade.
- 1888 A "Banner Year," high prices and large tonnage. Fred A. Potts died.
- 1889 Poughkeepsie Bridge Route opened. F. B. Gowen died.
- 1890 New York, Ontario & Western line to Scranton opened.
- 1891 Coxe Bros. road (D. S. & S.) began operations.
- 1892 "Reading Deal" organized by A. A. McLeod.
- 1893 Port Reading began business.
- 1894 N. Y., Susquehanna & Western line to Wilkes-Barre opened.
- 1895 Last formal meeting of the "Sales Agents" held.
- 1896 Last meeting of presidents, held January 23rd, and percentages adopted.
- 1897 E. P. Wilbur resigned presidency of the Lehigh Valley.
- 1898 N. Y., Susquehanna & Western leased to Eric. D. & H. Canal abandoned.
- 1899 Change in Lackawanna; Sam Sloan succeeded by W. H. Truesdale, after thirty years' control.

- 1900 Absorption by the Erie of the Pennsylvania Coal Co. interests, both coal and railroad.
- 1901 The feature this year was the establishment of a recognized scale of selling prices.
- 1902 The long strike from May 12th to October 24th.
- 1903 Record output; shipments approaching 60,000,000 tons.
- 1904 Control of N. Y., O. & W. Ry. goes to N. Y., N. H. & H. R. R. Co.
- 1995 Lehigh Valley R. R. buys out Coxe Bros. & Co. Record production, 78,647,020 short tons.

TABLE AA.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder and dynamite used, etc.

| Number of horses and mules | 96.25 11.11.11.11.11.11.11.11.11.11.11.11.11. |
|--|---|
| Number of pounds of dynamite | 235, 104 129, 255 1149, 255 1149, 255 1149, 255 1147, 253 1147, 25 |
| Number of kegs of powder used | 168, 220 183, 082 183, 082 183, 082 183, 083 185, 183 185, 183 185, 183 185, 183 185, 185 185, 185 185 185 185 185 185 185 185 185 185 |
| Number of non-fatal accidents | 66 69 117 128 138 14 15 15 16 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18 |
| Number of fatal accidents | 23.25.25.25.25.25.25.25.25.25.25.25.25.25. |
| Number of employes | 11, 233 9, 915 19, 915 11, 456 11, 456 |
| Average number of days worked | 288 288 288 288 288 288 288 288 288 288 |
| Total production of coal in gress and | 4 284.402 1192.663 2 4 5.78 2.6 5 5.29 2.9 5 7.06, 235 5 1.41, 59 6 7.706, 235 7 1.06, 235 8 1.41, 54 8 1.81, 58 1 1.748, 39 1 1.748, 30 1 1.748, 30 1 1.748, 30 1 1.748, 30 1 1.748, 30 |
| Number of tons sold to local trade | 64, 337 25, 66, 75 56, 66, 75 57, 69, 67 57, 69, 67 57, 69, 69 57, 69 5 |
| Number of tons used at collieries for sleam and heat | 3.6. 105 2.8. 105 2.8. 125 2.8. 125 2.8. 125 2.8. 125 4.9. 105 4.9. 105 2.8. 105 2.8 |
| Number of tons of coal shipped | 2, 883, 591 5, 128, 493 1, 128, 493 1, 128, 493 1, 128, 493 1, 128, 493 1, 1, 103 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1 |
| e e | |
| Districts | First, Second, Phird, Pourth, South, Sixth, Filterath, Filte |
| | First, Second, Fourth, Fifth, Sixth, Sixth, Sixth, Sixth, Fisherth, Tornth, Tornth, Thureenth, Fourteenth, Fourtee |

TABLE AA.-Continued.

| | Number of air compressors | 11000000000000000000000000000000000000 | 21.2 |
|-------------------|--|--|---------|
| 1 | Number of electric dynamos | 11 × 1 × 1 × 1 × 1 × 1 × 1 × 1 × 1 × 1 | 117 |
| reg ber | Subject of between to surface and surface states | 25 25 25 25 25 25 25 25 25 25 25 25 25 2 | 431,707 |
| əşn | nim 19q snollen ni vilosqa') | 4. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. | 791,994 |
| Buire. | Number of pumps delivations assists of the matter to surface | 96848888 <u>444</u> 468 | 210 |
| Total horse power | | 24,831,834,64,84,84,64,64,64,64,64,64,64,64,64,64,64,64,64 | 501,474 |
| Ils lo | Number of steam engines o | 88 88 88 88 88 88 88 88 88 88 88 88 88 | 5, 471 |
| es | Electric | ## 6 8 51 F & 15 8 8 8 10 10 10 10 10 10 10 10 10 10 10 10 10 | 184 |
| Locomotives | 1 V | (-x1) (-01004412 40 | 88. |
| Loc | Steam | 222282212222222 | 107 |
| | Tetal horse power | 22, 38, 133, 38, 133, 38, 133, 38, 133, 38, 133, 133 | 460,218 |
| More power | | 19, 19, 19, 19, 19, 19, 19, 19, 19, 19, | 399,068 |
| Number of Bollers | 7.8ludu'T | 138 808 808 809 1507 1507 1507 1333 1333 1333 2209 2209 240 | 2,494 |
| Numb | Horse power | 9,59,000 9,0 | 61,150 |
| | fgolybnifg') | 848548898488184548 84854888888888888888888888888 | 1,661 |
| | Districts | First, Second, Found, Found, Found, Found, Found, Found, Seventh Seventh Seventh Seventh Twelf, Twelft, Found, Founded to the seventh Founded to the seventh Founded to the seventh Founded to the seventh | Totals, |

TABLE A.-Number of each class of employes in each district,

| əpisuj | Grand total | 420 314 932 42,078 31,967 12,069 1,009 10,370 13,928 | 116,371 | 143 401 2, 733 5, 663 12, 040 4, 734 25, 403 51, 883 168, 254 |
|-----------|---|--|---------|--|
| | Fifteenth | 1,002 1,002 288 288 99 99 48 | 2,917 | 866 217 316 45 45 917 1.618 |
| | Роитеелт | 36 36 1, 132 1, 132 1, 132 100 100 1, 134 1, 134 | 9,823 | 284 284 284 1.575 1.588 2.26 80 2.586 5,385 |
| | Тһітtеепtһ | 2,015 17 1,158 1,158 379 131 131 155 1,28 | 5,828 | 14 186 186 186 186 186 11, 635 3, 396 3, 396 |
| | Twelfth | 2, 592 1, 211 1, 211 1, 211 1, 600 106 41 675 1, 343 | 6,602 | 16 176 176 197 197 2, 102 3, 786 10, 388 |
| | Бјечепth | 15 12 80 2.625 1,897 1,897 102 102 56 632 1,216 | 7,148 | 21 128 352 1,145 277 1,668 3,643 3,643 |
| | Тепі | 23 11,600 1,620 1,621 446 124 124 124 124 124 124 124 124 | 6,138 | 14 188 188 188 409 860 240 50 240 50 3,924 3,924 |
| | Ninth | 2, 804 2, 277 2, 277 705 129 1, 442 | 9,467 | 15 36 351 733 827 677 80 3,032 5,751 |
| lcts | प्रमुख | 24 23, 128 2, 842 1, 079 434 1, 063 1, 063 | 9,256 | 8 23 159 371 827 827 470 50 1,445 3,353 12,609 |
| Districts | Seventh | 29 113 101 2, 5578 1, 005 454 66 809 923 | 9,049 | 200 223 223 444 441 983 303 3,919 3,919 |
| | Sixth | 2,22 2,25 2,255 2,255 1,035 1,035 447 498 | 8, 2%7 | 25 201 201 389 849 238 238 1, 433 3, 151 |
| | ыци | 2,277 2,994 1,241 232 67 819 | 9,616 | 255 208 363 363 729 301 1,752 3,435 |
| | Роцтей | 28 112 12 2,916 1,090 1,090 676 479 | 8,716 | 32 148 223 820 330 3,035 3,035 11,751 |
| | bridT | 28 10 10 2, 465 1, 068 1, 068 47 497 697 | 7,489 | 128 128 128 128 128 128 1383 147 1,090 1,865 865 |
| | Second | 2, 642 2, 714 1, 028 1, 028 46 454 379 | 7,554 | 13 123 123 214 378 378 378 378 38 1,065 9,915 |
| | terlT | 22, 936 34, 34, 34, 35, 36, 36, 36, 36, 36, 36, 36, 36, 36, 36 | 8, 490 | 23 1144 312 23 11, 236 11, 236 11, 233 11, 233 |
| | Occupations of Persons Employed Inside | Mine foremen, Assistant mine foremen, Fire bosses and assistants, Miners', Bhorers, Drivers and rumers, Doorboys and helpers, Company men, All other employes, | Totals, | Occupations of Persons Employed Superintendents, Backsmith and carpenters, Backsmiths and carpenters, State pickers (men), Back (seepers and elerks, All other employes, Totals, Grand totals, inside and outside, |

TABLE B.—Causes of fatal accidents in and about the mines, and number attributable to each cause; number of wives made widows and children orphaned by reason of such accidents.

| | | | | | | | Districts | riets | | | | | | | | | |
|---|----------|-------------|---------|------------|--------------|-----------------|--------------|---|------------------------|----------|--|----------------|--|----------------|---|--|---|
| Causes of Accidents Inside | teria | puosas | ba'dT' | цыпод | Fifth | Sixth | Seventh | hida:a | Ninth | dinoT | Ејелепт | ПлюмТ | Thirteenth | मुर्ग को सार्व | Піпоонії | Total | Percentages |
| First of east, state and roof, Mire cars: Explosions of gas and dust Explosions of provider and dynamite. Explosions of provider and dynamite. Falling, into stanfas, stops, etc. Kristed by andres, etc. Kristed by andres, etc. Sufficiention by gas or otherwise, Misculane us, | 25 1 8 1 | ्य व । लाका | 100 100 | ×10 2001 □ | ಕ್ಷಣಬ⊶ಅನಿ≀ ಟ | 5 10 0 H 4 2 11 | 2 cu : u : u | 60 mm | 0 00 01 H112 100 101 | | 16 10 10 10 10 10 10 10 10 10 10 10 10 10 | #± α ω → 4 ω : | ₩ 01 01 H 02 02 02 02 02 02 02 02 02 02 02 02 02 | 12 6 6 U | оонн он : : : : : : : : : : : : : : : : | 8888 4 4 4 4 4 5 5 5 5 4 5 5 5 5 5 5 5 5 | 25.25.25.25.25.25.25.25.25.25.25.25.25.2 |
| Totals, | | 87 | 75 | 6:1 | 54 | 53 | 100 | 38 | 3.6 | 19 | 47 | 38 | 32 | 21 | 12 | 551 | 100.001 |
| Cars. Machine W. Sufficient in clutes, etc. Miscellamous. | 8269 | ene | 200 | - c1 : 4 | 0100 | 61 | , क्लाधान | 1.0 1.0 | 410 - 100 | H 60 144 | F4 \$1 | H===01 | 4-67 - 67 | H 01 01 01 | | 82128 | 35.48 11.83 10.83 8.60 8.60 8.60 8.60 8.60 8.60 8.60 8.60 |
| Totals, | -1 | 4 | 672 | t- | t~ | C1 | v. | 10 | 13 | 000 | 8 | 9 | 000 | 7 | | 93 | 100.00 |
| Grand totals, inside and outside, | 183 | 32 | 37 | 36 | 19 | 45 | 19 | 48 | 49 | 27 | 20 | 1 44 | 40 | 49 | 12 | 644 | 100.00 |

Number of widows, 349. Number of orphans, 876.

TABLE C.-Causes of non-fatal accidents in and about the mines, and number attributable to each cause.

| | Percentages | 33.24 13.38 13.38 10.02 10.02 11.74 11.74 11.74 11.74 | 9.95 | 100.40 | 20.10 | 43.30 | 100.011 | |
|-----------|----------------------------|---|---|-----------------------|-----------------------------|--|---|-----------------------------------|
| | Total | 266 100 100 100 100 100 100 100 100 100 1 | 109 | 1,(95 | 39 | 61.24 | 194 | 1,289 |
| | Fifteenth | 00 44 HWHW | - | 21 | დ ⊢ | C1 | 9 | 100 |
| | Four teenth | ******* | 67 | 333 | ਜਜ | -01 | 4 | 100 |
| | Тһітеенth | 117 24 24 6 6 6 | 6 | 82 | 44 44 | 12 | 12 | 106 |
| | Twelft'h | 27 12 18 1 | භ | 63 | က္ကေ | , च चा | 13 | 91 |
| | Біечепій | 111 6 2 2 4 2 2 4 2 2 4 2 2 4 3 2 4 3 2 4 3 2 4 3 2 4 3 2 4 3 2 4 3 3 3 3 | | 54 | - 01 | | -7" | 28 |
| | Тепт | 9001 | 133 | 51 | €3 ¹¹ | | Ξ | 62 |
| | Minth | 100 100 141 11 | 2 2 | 97 | 16 | 12 | 3 | 131 |
| icts | ឋាវក់ខ្លាំធ | 100 m | | 02 | च्या ०० | - | ======================================= | SI |
| Districts | Seventh | 13.0 17.0 17.0 17.0 17.0 | កន្ត | 15.2 | 6.6 | 15 | 12 | 203 |
| | Sixth | 22.53 | 2 = | 66 | 1010 | 6.5 | 13 | 112 |
| | पाम्राज | 123 123 133 23 | | 83 | 10.04 | 60 | 10 | 93 |
| | Боитій | 22 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | - 13 | 28 | 1 | 4 | 11 | 69 |
| | bridT | 256 16 16 10 3 | | SS | 6161 | 5. | 13 | 10. |
| | Second | 8 8 8 | 9 | 10 | | 4 | 14 | 99 |
| | First | 100 100 100 100 100 100 100 100 100 100 | : : : : : : : : : : : : : : : : : : : | 69 | 1 | | c1 | E E |
| | Causes of Accidents Inside | Falls of coal, slate and roof, Mine cars, Explosions of gas and dust, Explosions of powder and dynamite, Premarure blasts, Falling into shafts, slopes, etc., Virshe, at batteries, Kirked by mules, etc. | Suffocation by gas or otherwise, Machinery, | Miscenancous, Totals, | Causes of Accidents Outside | Suffocation in chutes, etc., Boiler explosions, Miscellaneous, | Totals | Grand totals, inside and cutside, |

TABLE D.-Number of gaseous and non-gaseous mines, number of foremen, assistants and fire bosses, production of coal from gas-

| | Tasherles of production | 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
|--------------------------|--|---|
| | Percentage of production from non-gaseous mines | 6. 197 197 197 197 197 197 197 197 197 197 |
| | Percentage of production | 20mm |
| rom each. | Production in tons from | 78, 094 179, 020 585, 573 587, 186 199, 307 112, 671 112, 671 155, 691 165, 691 165, 691 185, |
| of production from each. | Production in tons from some more granding and m | 1, 989, 235 2, 687, 187 404, 539 404, 459 618, 578 618, 578 81, 672 186, 197 186, 197 186, 197 186, 197 186, 197 186, 197 186, 197 187 187 187 187 187 187 187 187 187 18 |
| | Production in tons from | 2 236, 744 1, 726, 096 4, 501, 903 4, 501, 903 8, 801, 903 9, 801, 903 1, 703, 903 1, 713, 302 1, 713, 302 83, 835, 448 |
| and percentage | Das nemer of foremen and | 22, 4 4 4 114 114 114 114 114 114 114 114 1 |
| and | Sumber of non-gaseous | 21 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| washeries, | Zumber of fire bosses | ###################################### |
| us mines and | Number of foremen and sasistant foremen in gas- ous mines | 20 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| on gaseous 1 | Number of gaseous mines | 1 0 2 8 8 8 4 8 8 5 8 5 8 5 6 6 6 6 6 6 6 6 6 6 6 6 6 |
| eous and non g | Districts | Pirst. Second. Fourth. Fourth. Fourth. Swelth. Swelth. Swelth. Fourth. |

TABLE E.-Quantity of coal produced by each company that produced 500,000 or more tons, and the number of persons employed.

| Names of Companies | Number of Inspection Districts | Production of coal in tons. | Employes |
|---|--|---|--|
| Philadelphia and Reading Coal and Iron Company, Lehigh Valley Coal Company, Delaware and Hudson Company, Delaware and Hudson Company, Lehigh and Wilkes-Barre Coal Company, Lehigh and Wilkes-Barre Coal Company, Susquehama Coal Company, Lehigh Coal and Navigation Company, Lehigh Coal Coal Company, Lehigh Coal Company, Incorporated, Temple Iron Company, Incorporated, Temple Iron Company, Incorporated, Temple Iron Company, Hilliscia Coal Company, Lingson Coal Company, Rengen Coal Company, Rariste and Company, Rariste Coal Company, Rariste and Company, Mill Creek Coal Company, Mill Creek Coal Company, Mill Creek Coal Company, Mill Creek Coal Company, St. Clair Coal Company, | delphia and Reading Coal and Iron Company, A Valley Coal Company, Tenth, Eleventh, Twelfth, Thirteenth, Fourteenth, Fourteenth, Fourteenth, Fifth, Sixth, Seventh, Elghth, First, Third, Fourth, Fifth, Sixth, Fourteenth, Second, Company, First, Third, Fourth, Fifth, Sixth, Fourteenth, Second, Third, Fourth, Fifth, Sixth, Second, Third, Fourth, Fifth, Sixth, Second, Third, Fourth, Fifth, Second, Third, Fourth, Fifth, Second, Third, Fourth, Fifth, Second, Third, Fourth, Fifth, Sixth, Second, Third, Fourth, Fifth, Sixth, Elghth, Second, Third, Fourth, Fifth, Second, Third, Fourth, Fifth, | 11 479, 173 6 776, 043 6 972, 613 7 4 966, 644 7 4 966, 644 7 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 | 90, 685 14, 549 11, 529 1131 19, 882 12, 1387 11, 100 11, 100 |

The 21 companies named above produced over 76 per cent. of the anthracite tonnage.

TABLE F.-Classification of employes killed or fatally injured in and about the mines, 1877 to 1905 inclusive.

| | | | | | | | | Years | | | | | | | |
|---|-------------|------------|----------------------------------|---------|---------|---|---------------------------------|--|-----------------------------------|-----------------------------|--|-----------------------------|-----------|----------------------------|--------------------------------|
| Inside Employes | 1877 | 1878 | 1879 | 1880 | 1881 | 18822 | 1883 | 1884 | 1885 | 1886 | 1887 | 1888 | 1 · 89 | 1890 | 1891 |
| Mine foreagen and assistants, Pire busses and assistants. Miners laborers. Privers and runners. | 119 99 9111 | 214481E 62 | 141 25 25 6 75 75 | 888 88 | 1020 TT | 13555 2 2 1 4 2 2 N 2 N 2 | 138 138 147 188 188 | 232 252 252 253 253 253 253 253 253 253 | 160 86 166 16 6 19 | 131 131 18 18 6 | 1 100 57 23 10 12 | 1 169 169 33 16 | 40.286.01 | 1146 957 37 31 | 11886 1119 33 27 - 22 |
| Totals | 1 6 | 163 | 939 | 186 | 61 | 250 | 97.4 | 286 | 66 | 236 | 270 | 317 | 339 | :-23 | 372 |
| Outside Employes Foremen, Plackemiths and currenters. Engineers and firemen. State rickers. | | 192 | 170 | ; cc ex | 61.0 61 | 6,1% | 1-11-21 | 40.01.0 | 6 13 16 | H=608 | 60 60 60 60 60 60 60 60 60 60 60 60 60 6 | 37 | 110 37 | 13 21 21 21 21 | ±€ |
| An onate, Totals | 18 | 40 | 30 | 16 | 3.1 | 41 | 49 | 46 | 4:5 | 43 | 46 | t- | 58 | 156 | 26 |
| Grand totale, inside and outside, | 194 | 187 | 262 | 5.5 | 1543 | 291 | 2000 | 200 | 332 | 279 | 316 | 364 | 397 | 378 | 428 |

TABLE F.—Continued.

| | | | | | | | Year | L., | | | | | | |
|---|---|--|---|-----------------------------|---------------------------------|------------------------------------|-------------------------------|-----------------------------------|-------------------------|---------------------------------|---------|--|---|--|
| Inside Employes | 1892 | 1893 | 1894 | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 |
| Mine foremen and assistants, Fire busses and assistants, Miners, Divers and runners, All others, etc. | 8 4 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 | 84 6 6 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 218 218 38 38 15 | 1779 1179 1170 233 | 204 174 174 100 259 | 210 010 89 89 85 85 | 176 124 33 33 124 | 1199 1114 139 139 138 | 184 5 33 8 83 8 84 5 | 222 1224 455 455 87 | 2007 | 202 110 110 146 123 511 | 233 1453 1453 11553 1155 | 308 148 31 148 417 |
| Totals, | :61 | 05 | 368 | 354 | 430 | 372 | 360 | 389 | 358 | 441 | 245 | 456 | 496 | 551 |
| Outside Employes Foremen, and carpenters, Engineers and fremen, All others, | 1 4 1 - 13 | 6161 EE | 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 6467 | es 45 € | # 01 V & | H 488 | 100000 | 616120 9 | 5.50 | 342-713 | 14006 | 1133 | 12.5 e 21.2 e 22.5 e 22 |
| Totals, | 57 | 89 | 78 | 67 | 72 | 51 | 10 | 7.5 | 53 | 62 | 55 | 65 | 66 | 93 |
| Oralia totals, mistae and outsine, | 410 | 4.10 | 440 | 421 | 200 | 423 | 411 | 461 | 411 | 513 | 300 | 210 | 080 | 144 |

TABLE G.—Number and causes of fatal accidents in and about the mines, 1870 to 1905 inclusive.

| .11 | | | | | | |
|-----|-----------------|--|---------|--|---------|-----------------------------------|
| | 1887 | 46641 L 2 L 3 | 270 | 11 11 11 11 11 11 11 11 11 11 11 11 11 | 46 | 316 |
| | 1886 | 66831 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 236 | 111 150 | 43 | 279 |
| | 1885 | 11 23 85 665 | 290 | 9 19 | 42 | 332 |
| | 1884 | 13 13 18 18 18 18 18 18 18 18 18 18 18 18 18 | 286 | 13 13 14 | 46 | 335 |
| | 1883 | 13. 14.32.13.25.65.8 | 57.4 | 77 76 | 49 | 323 |
| | 1882 | 625245140044H44H5 | 250 | 188 | 4 | 291 |
| | 1881 | 75 75 45 | 1334 | 16 14 3 6 | 39 | 273 |
| | 1880 | 64889arra 0144E | 186 | 0112H 00 | 16 | 506 |
| | 1879 | E222210 00 100 115 | 233 | 41 .6 | 30 | 262 |
| | 1878 | 7488 88 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 163 | 1-901-00 | 24 | 187 |
| | 1877 | 54455 888 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 176 | 75 4 5 | 18 | 194 |
| | 1576 | 83 ± 82 ± 82 ± 82 ± 82 ± 82 ± 82 ± 82 ± | 213 | 91270 | 15 | 228 |
| | 1875 | 120 110 110 110 110 110 110 110 110 110 | 204 | 988886 | 34 | 238 |
| | 1874 | 84882 Louis 408 | 212 | 4101410 | 19 | 231 |
| | 1873 | 8 6 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 976 | 171 6 1 141 | 38 | 264 |
| | 1872 | 10% 12% 4 11 0 to 12 12 12 12 12 12 12 12 12 12 12 12 12 | 198 | 600- | 25 | 993 |
| | 1871 | \$2220 pg 2000 0 555 | 188 | 4001-0 | 65 | 210 |
| | 1870 | 141 171 172 173 173 174 175 175 175 175 175 175 175 175 175 175 | 184 | 44411 | 17 | 211 |
| | Inside of Mines | By falls of coal. Ex falls of state and roof. Ex falls of state and roof. Ex mine cars. Ex explosions of pass and dust, Ex explosions of plasts, etc. Ex falling into shafts, Ex falling into | Totals, | Outside of Mines By machinery. Ry sufficiention. Thy backer yightsions. | Totals, | Grand totals, inside and outside, |

*Nanticoke disaster; 26 persons were entombed by an inrush of quicksand.

TABLE G.-Continued.

| 1905 | 212 213 213 214 214 210 210 213 210 213 213 213 213 213 213 213 213 213 213 | 551 | 22 11333 | 93 | 644 |
|-----------------|--|---------|---|---------|-----------------------------------|
| | 220 25 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | | 15 2 31 | | li 11 |
| 1904 | | 496 | | 66 | 292 |
| 1903 | 149 149 170 170 170 171 173 173 173 174 176 176 176 176 176 176 176 176 176 176 | 426 | \$ 60 CT 4 CT CT | 92 | 518 |
| 1902 | 04544000000000000000000000000000000000 | 245 | 19 16 3 | 22 | 300 |
| 1901 | 160 69 115 153 153 155 155 155 155 155 155 155 | 441 | 113 | 72 | 513 |
| 1900 | 1141 1144 138 138 138 138 144 444 113 113 | 358 | 28 10 14 11 | 53 | 411 |
| 1899 | 241 241 252 211 202 212 202 203 203 203 203 203 203 203 203 20 | 389 | 128 128 | 72 | 461 |
| 1898 | 821 888 844 821 832 844 847 847 847 847 847 847 847 847 847 | 360 | 15.20 | 51 | 411 |
| 1897 | 28 28 38 38 38 38 38 38 50 10 10 10 10 10 10 10 10 10 10 10 10 10 | 372 | 21 29 1 | 10 | 423 |
| 1896 | 2014 8014 8014 8014 8016 8016 8016 8016 8016 8016 8016 8016 | 430 | 118 17 17 29 46 24 | 72 | 205 |
| 1895 | 800000000 8000000000000000000000000000 | 354 | 26 15 14 12 | 29 | 421 |
| 1894 | 28 22 28 28 28 28 28 28 28 28 28 28 28 2 | 368 | 133 140 100 100 100 100 100 100 100 100 100 | 28 | 446 |
| 1893 | 000 1000 147 111 100 100 100 100 100 100 100 100 10 | 388 | 330 | 89 | 456 |
| 1892 | 888 104 57 57 57 57 77 77 77 | 341 | 11 11 5 22 | 57 | 418 |
| 1891 | 50000000000000000000000000000000000000 | 372 | 12 14 14 28 28 28 28 | 26 | 428 |
| 1890 | 100 100 100 100 100 100 100 100 100 100 | 323 | 25 9 | 55 | 378 |
| 1889 | 100 100 100 100 100 100 100 100 100 100 | 339 | 27 14 11 | 58 | 397 |
| 1888 | 85.80 82 11.20 85.80 82 82 82 82 82 82 82 82 82 82 82 82 82 | 317 | 16 12 19 | 47 | 364 |
| Inside of Mines | By falls of coal, By falls of slate and roof, By mine cars, By while cars, By explosions of gas and dust, By explosions of powder and dynamite, By explosions of blasts, etc. By falling into shafts, By falling down manways, etc. Furshed at batteries, By sufficetion, M sufficetion, M sterlaneous causes. | Totals, | Py carrs. Py marchinery. By sufforcution. By bright explosions. Miscel'aneous causes. | Totals, | Grand totals, inside and outside, |

*Twin shaft disaster; 58 persons were entombed.

TABLE H.—Nationality of employes killed or fatally injured in and about the mines. 1892 to 1905 inclusive.

| 1892 888 888 888 899 1899 | 4. 6.52 2.22 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 | 88 88 88 88 88 88 88 88 88 88 88 88 88 | 88888888888888888888888888888888888888 | 81 828 F197541746F1948 89 | 86 2223 2525 2525 2525 2525 2525 2525 2525 | 18.99 18.99 11.14.14.14.14.14.14.14.14.14.14.14.14.1 | 1889 1800 1800 27 27 29 29 29 29 29 29 29 29 29 29 29 29 29 | 1899 1300 1301 1891 1891 1892 1892 1893 1894 1895 1895 1895 1896 1896 1896 1896 1896 1896 1896 1896 | 1899 1900 1901 1902 1903 1904 1904 1904 1904 1905 | 1899 1900 1901 1902 1903 1904 1905 1906 1907 | 1895 1894 1896 1896 | 25 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |
|--|--|--|--|--|---|---|---|---|---|---|---------------------|--|
| | 80 80 80 80 80 80 80 80 80 80 80 80 80 8 | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 1898 1898 1898 1894 1997 1998 | 1898 1898 1898 1894 1997 1998 | 1893 1884 1895 1894 1895 1894 1896 1897 1898 1897 1898 | 1893 1884 1895 1894 1895 1894 1896 1897 1898 1897 1898 | 1893 1894 1895 1894 1895 1894 1896 1897 1898 1897 1898 | 1893 1894 1895 1894 1895 1894 1896 1897 1898 1897 1898 | 1895 1894 1896 1897 1898 1894 1896 1897 1898 | 1893 1894 1895 1896 1847 1898 1899 1900 1901 1902 1903 1904 1901 1902 1903 1904 1904 1904 1905 | | |
| 1896 1896 1897 1899 1900 1901 1902 1903 1903 1904 1904 1904 1904 1905 | Years Year | Years Year | Years Year | Years Trigg 1500 1901 1902 1903 1904 1904 1904 1905 1904 1905 1906 1904 1905 < | 1960 1901 1902 1945 1946 | 1901 1902 1903 1904 1905 | 100 1 | 5. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. | # Mana | | 1905 | 522 % 816 7 8 4 8 9 8 4 6 1 |

TABLE I.-Production of coal in tons of 2,000 pounds, number of tons produced per employe inside, quantity of explosives used, and the number of tons of coal produced per each pound of explosive used, 1892 to 1905 inclusive.

| _ | Years | Total production of coal in tons of 2,000 pounds | Average number of tons of coal produced per employe inside | Number of pounds of black powder used | Number of pounds of dyna- mite used | Average number of tons of coal produced per pound of explosive used |
|--|-------|--|--|---|---|---|
| 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, | | 51, 226, 977 52, 841, 110 50, 966, 920 56, 948, 756 53, 843, 249 52, 581, 936 52, 802, 594 60, 518, 331 57, 363, 996 67, 094, 665 41, 340, 935 75, 232, 585 73, 594, 369 78, 647, 020 | 624 611 580 628 568 549 579 656 609 682 *182 \$737 667 | 30, 981, 875 31, 723, 771 30, 755, 450 32, 766, 775 32, 117, 950 30, 670, 100 34, 37, 275 30, 929, 500 38, 020, 100 21, 128, 675 42, 529, 400 44, 779, 830 47, 570, 500 | 1,092,190 1,324,142 1.713,235 1,797,494 1,723,770 2,415,650 3,025,0 5 3,625,0 5 3,649,417 3,454,641 4,155,685 2,130,965 5,317,422 6,519,312 8,353,594 | 1.59 1.80 1.57 1.67 1.51 1.51 1.57 1.59 1.67 1.59 †1.77 1.59 1.41 |

The ton of 2,000 pounds is used so that a comparison can be made with the bituminous production per pound of powder used.

*The increase in production per pound of powder used was caused by the production of the washeries during the strike.

†This decrease in production per employe inside was caused by the small number of days worked on account of the strike.

‡The increase in production per employe was due to the large production of the washeries.

TABLE J.-Number of employes in and about the mines, by counties, 1885 to 1905 inclusive.

| | ANNUAL | - |
|----------|--|----------|
| 1895 | 4,352 2,627 1,975 31,446 35,885 13,889 3-,124 31,095 | 143, 705 |
| 1894 | 5, 391 2, 624 30, 475 30, 475 13, 517 31, 731 1, 012 | 139, 939 |
| 1893 | 2, 663 2, 663 2, 094 2, 084 13, 485 33, 667 3, 667 3, 667 1, 045 | 138,069 |
| 1892 | 3.848 21.445 27.555 48.369 31.884 31.884 31.884 261 999 | 130,300 |
| 1891 | 80 9 9 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 123,308 |
| 1830 | 60000000000000000000000000000000000000 | 119,919 |
| 1889 | 2, 1, 2, 2, 1, 2, 4, 1, 2, 2, 1, 2, 2, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 3, 3, 4, 4, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, | 119,664 |
| 1888 | 25.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5. | 112,218 |
| 1887 | 3,076 1,544 1,544 1,55 1,55 1,55 1,55 1,55 1, | 106,517 |
| 1886 | 6.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1 | 103,044 |
| 185 | 21.13.826. 1.13.826. 1.13.826. 1.13.83.11.13.83.13.13.83.13.13.83.13.13.83.13.13.13.13.13.13.13.13.13.13.13.13.13 | 100,320 |
| Counties | c'arbon. c'arbon. l'auphin, l'auphin, l'aresmennin. Luzerne, Nerthumforland. Sefunyidil. Sullivati. Sullivati. | Totals, |

| 1904 1905 | 4.477 4.398 2.192 2.388 2.113 2.165 40, 675 40, 878 14.345 16.208 35.979 40, 465 665 65 734 170 | 161,330 168,254 |
|-----------|--|-----------------|
| 1903 | 2, 23, 4, 05, 1, 2, 23, 1, 4, 05, 1, 2, 23, 1, 4, 5, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, | 151,827 |
| 2067 | 3.805 2.839 3.5,335 3.5,335 52,766 14,863 34,950 1,386 | 148, 139 |
| 1901 | 4, 365 2, 382 3, 383 34, 798 53, 280 14, 187 434 1, 409 589 | 147,651 |
| 1900 | 4,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0 | 143, 824 |
| 1899 | 3,998 2,392 2,394 30,886 50,884 11,487 33,487 467 1,210 465 | 140,604 |
| 1898 | 2, 983 2, 186 2, 117 32, 117 31, 82 34, 238 34, 238 1, 193 1, 193 | 142,420 |
| 1897 | 2, 148 1, 977 1, 977 1, 978 1, 138 1, | 149,557 |
| 1896 | 4, 333 2, 781 32, 781 32, 771 36, 957 36, 957 36, 295 37 1, 186 | 150,088 |
| Countles | Carloon. Calumbin. Lackwanna. Lackwanna. Northumberland. Schwykill. Sullivan. Susquehanna. | Totals, |

TABLE K -- Production of coal in tons by counties 1885 to 1905 inclusive

| IABLE K.—Frouuction of coal in tons, by countles, 1885 to 1895 inclusive. | 1886 1887 1889 1890 1891 1892 1894 1895 | 1.50 |
|---|---|---|
| tion of coal | 1886 18 | 1, 164, 970 601, 731 607, 886 8, 982 8, 982 15, 901, 503 1, 596, 882 2, 1596, 882 2, 1596, 882 1, 576, 982 1, 576, 982 1, 576, 982 1, 576, 983 1, 576, |
| Froauc | 1885 | 688, 098 612, 580 612, 580 114, 787, 379 2, 561, 135 7, 540, 255 1, 540, 255 1, 540, 255 1, 610, 612 84, 459 |
| TABLE N | Counties | Carbon, Columbia, Daughin, Lardynin, Lardenvenna, Larenven Sortumberland, Sortumberland, Sull van, Susquehama, Wayne, Totals, |

| 1905 | 2, 211, 077 1, 097, 944 1, 097, 948 17, 597, 468 26, 779, 139 16, 049, 250 607, 229 607, 273 59, 829 |
|----------|---|
| 1904 | 2,012.064 1,028.236 16,971.096 24,776.864 14,40.350 262.772 68,172 68,172 68,172 68,172 68,172 68,172 68,172 |
| 1903 | 1, 205, 845 1, 205, 845 16, 437 17, 888, 333 24, 891, 394 14, 27, 304 14, 27, 304 14, 27, 304 14, 333, 47 174, 976 61, 171, 951 |
| 1902 | 986.127 658.991 377.883 10,581.401 13,016.026 2,523.273 7,583.906 835.194 404.248 |
| 1901 | 1, 6.29, 332 1, 080, 331 741, 582 11, 540, 040 21, 280, 312 4, 819, 099 13, 610, 66 136, 165 663, 877 329, 877 |
| 1900 | 1,663,961 875,643 19,775,643 19,178,573 14,665,190 19,629 196,432 19,520 19,520 |
| 1899 | 1,680,595 885,061 13,285,949 19,819,742 12,296,547 12,296,547 163,555 624,125 275,955 54,034,224 |
| 1898 | 1,445,288 1,69,175 677,460 11,789,001 17,783,773 10,980,105 147,333 422,939 47,145,174 |
| 1897 | 1,227, 235 481, 453 11,946, 871 17,141,809 3,774,667 10,971,913 16,404 46,047,554 |
| 1896 | 1,488,550 443,330 702,335 11,688,479 17,964,900 4,117,569 11,675 151,772 161,773 474,637 |
| Counties | Carbon, Columbia, Dauphin, Lackawanna, Lackawanna, Northumberland, Sehuylkill, Sullivan, Sullivan, Wayne, Totals, |

TABLE L.—Fatal accidents per each 1,000 employes in and about the mines and tons of coal mined for each fatal accident, 1870 to 1905 inclusive.

| Years | Employes | Fatal accidents | Fatal accidents per 1,000 employes | Number of tons of coal mined | Number of tons of coal mined for each fatal accident |
|---|---|---|---|---|---|
| 1870, 1871, 1872, 1872, 1873, 1874, 1875, 1876, 1876, 1877, 1878, 1878, 1879, 1880, 1881, 1882, 1881, 1883, 1884, 1884, 1885, 1885, 1886, 1887, 1889, 1890, 1891, 1892, 1894, 1894, 1895, 1896, 1897, 1898, 1898, 1898, 1894, 1896, 1897, 1898, 1898, 1898, 1899, 1900, 1901, 1900, | 35,600 37,488 44,745 48,199 53,462 69,966 68,847 76,631 76,631 76,031 76,031 100,329 103,040 106,517 123,308 123,060 123,308 123,060 123,308 124,100 125,100 126,000 127,100 128,100 1 | 211 210 223 264 264 264 273 285 228 228 202 273 291 323 323 323 324 364 364 364 364 428 418 456 461 411 411 502 421 421 411 513 300 518 518 518 518 518 518 518 518 518 518 | 5.93 5.60 4.98 5.48 5.48 2.92 3.81 2.75 3.59 3.35 3.31 2.71 2.97 2.92 3.32 3.31 2.71 3.32 3.31 3.31 3.31 3.31 3.31 3.31 3.3 | 12, 653, 575 13, 868, 087 13, 899, 976 18, 751, 358 17, 794, 857 20, 895, 220 20, 929, 166 22, 077, 8, 9 31, 301, 277 27, 711, 250 31, 501, 277 33, 703, 008 22, 551, 373 34, 135, 583 34, 777, 661 38, 973, 974 44, 376, 180 40, 166, 327 44, 376, 180 40, 166, 327 44, 376, 180 40, 166, 327 44, 376, 180 40, 166, 327 44, 376, 180 40, 166, 327 44, 376, 180 40, 166, 327 44, 376, 180 40, 186, 327 44, 376, 180 40, 186, 327 44, 376, 180 40, 186, 327 44, 376, 180 40, 186, 327 44, 376, 180 40, 186, 327 44, 376, 180 47, 778, 373 47, 179, 563 38, 911, 519 50, 561, 799, 258 65, 709, 258 | 59, 970 66.039 62.332 71, 028 77, 034 87, 795 86, 013 113, 803 99, 795 105, 768 123, 650 111, 811 107, 555 104, 314 98, 0 6 102, 818 124, 611 119, 12; 114, 394 198, 171 106, 230 103, 654 102, 032 120, 777 95, 766 110, 987 114, 709 117, 211 124, 117 124, 117 124, 117 125, 635 129, 635 110, 463 |

ANTHRACITE DISTRICTS



First District

LACKAWANNA AND SUSQUEHANNA COUNTIES

Scranton, Pa., March 6, 1906.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my annual report for the First Anthracite Inspection District, for the year ending December 31, 1905.

Respectfully submitted,

L. M. EVANS, Inspector,

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SUMMARY OF STATISTICS

| Number of collieries, | 17 |
|--|-----------|
| Number of mines, | 36 |
| Number of mines in operation, | 36 |
| Number of tons of coal shipped to market, | 3,833,591 |
| Number of tons used at mines for steam and heat, | 396,105 |
| Number of tons sold to local trade and used by employes, | 54,337 |
| Number of tons produced, | 4,284,033 |
| Number of persons employed inside of mines, | 8,490 |
| Number of persons employed outside, | 2,743 |
| Number of fatal accidents inside of mines, | 46 |
| Number of fatal accidents outside, | 7 |
| Number of non-fatal accidents inside of mines, | 59 |
| Number of non-fatal accidents outside, | 2 |
| Number of tons of coal produced per fatal accident inside, | 93,131 |
| Number of persons employed per fatal accident inside, | 184 |
| Number of persons employed per fatal accident outside, | 392 |
| Number of persons employed per non-fatal accident in- | |
| side, | 144 |
| Number of persons employed per non-fatal accident out- | |
| side, | 1,371 |
| Number of wives made widows, | 28 |
| Number of children orphaned, | 93 |
| Number of steam locomotives used inside of mines, | 1 |
| Number of steam locomotives used outside, | 25 |
| Number of compressed air locomotives used inside; | 27 |
| Number of electric motors used inside, | . 32 |
| Number of fans in use, | 32 |
| Number of gaseous mines in operation, | 12 |
| Number of non-gaseous mines in operation, | 24 |
| | |

TABLE A

PRODUCTION OF COAL

| Names of Operators | Tons |
|--|-------------|
| Scranton Coal Company, | 1,294,934 |
| Delaware and Hudson Company, | 1,141,048 |
| Hillside Coal and Iron Company, | 698,567 |
| Delaware, Lackawanna and Western Railroad Company, | 617,796 |
| Temple Iron Company | $412,\!407$ |
| North End Coal Company, | $110,\!531$ |
| Morss Hill Coal Company, | 8,750 |
| Total, | 4,284,033 |
| Production by Counties. | |
| Lackawanna, | 3,676,760 |
| Susquehanna, | 607,273 |
| Total, | 4,284,033 |

TABLE B.-Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of per accident

| <u></u> | Names of Operators | Scranton Coal Co Delaware and Hudsen Co., Hilstde Coal and Iren Co., Delaware Lackawanna and Western R. R. Co. Temple Iron Co., Morst End Coal Co., Morst Hill Coal Co. | Totals and averages for district, |
|---------------------|--|---|-----------------------------------|
| Fatal Accidents, | 9bistu() | 0.4L.0044 4L HH | 7 2 |
| | latoT | # H H G F G F G F F F F F F F F F F F F F | 5.3 |
| Non-Fatal Accidents | ebianI | 110011 | 29 |
| Acciden | IstoT | <u> </u> | 03 |
| | Tons of coal produced per | 13 143,881 16 81,503 10 99,795 13 77,224 7 103,102 2 27,633 | 61 , 93,131 |
| -uou | Tons of coal produced per fatal accident inside | 99, 610 76, 070 69, 857 47, 523 68, 734 65, 734 | 72,611 |
| | Number of employes inside | 2,814 2,002 1,209 1,263 340 47 | 8,490 |
| 91 | Number of employes outsid | 1, 134 666 367 254 231 76 | 2,743 |
| | Total number of employer | 3,948 1,576 1,576 1,046 62 | 11,233 |
| e per | bisni sevolqme ot employes insident | 313 1443 173 173 204 855 | 184 |
| e per | Number of employes outsid fatal accident | 283 666 254 231 | 392 |
| tegral of | Number of employes insid non-fatal accident | 216 133 120 97 170 17 | 144 |
| epist | Number of employes or per non-fatal accident | 531 | 1,371 |

TABLE C.-Classification of Fatal Accidents Inside and Outside of Mines

| | | | | | | - | | | | | | | _ | |
|---|---------|----------|-------|---------|--------|--------|------|-------------|-----------------|---------|----------|-----------|-------------------------|--|
| | | | | | | Мо | nths | | | | | | | |
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December. | Totals | Percentages |
| Falls of coal, Falls of roof, Mine cars, Explosions of gas and dust, Premature blasts, Falling into shafts, | 1 1 | | 1 | 1 2 | 3 1 | 2 1 | 5 3 | 4 1 1 | 1 2 2 | 1 1 | 4 1 | 3 1 | 2 29 10 1 3 | 4.35 63.05 21.74 2.17 6.52 2.17 |
| Totals, | 2 | | 4 | 3 | 4 | 3 | 8 | 6 | 5 | 2 | 5 | 4 | 46 | 100. |
| Causes of Accidents Outside. Cars, Machinery, Miscellaneous, | 1 | 1 | | 1 | 1 1 | 1 | | | | | | | 3 3 1 | 42.86 42.86 14.28 |
| Totals, | 3 | 1 | 4 | <u></u> | 6 | 1 4 | 8 | 7 | 5 | 2 | 5 | 4 | 7 53 | |
| |] | | | , | | | | - | , | , | 1 | | | |

TABLE D.-Classification of Non-fatal Accidents Inside and Outside of Mines

| | ! | | | | | Mo | nths | | | | | | | |
|---|---------|----------|-------|-------|-----|---------|-----------|---------------|------------------|--|----------|-----------|--|---|
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December. | Totals | Percentages |
| Falls of coal. Falls of roof. Mine cars. Explosions of gas and dust, Explosions of powder and dynamite, Premature blasts, Falling into shafts, By mules, Miscellaneous, Totals, Causes of Accidents Outside. Machinery, Miscellaneous, Totals, Grand totals inside and outside, | 4 | <u> </u> | 1 5 | | 1 | 3 == | 1 2 7 = 7 | 1 1 1 5 === 5 | 1 1 2 5 == 1 1 6 | 2 2 1 5 ============================== | 8 | 3 | 20 16 1 3 6 1 2 6 59 | 6.78 33.90 27.12 1.69 5.09 10.17 1.69 3.39 10.17 100. 50.00 50.00 100. |

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|--|---------|----------|-------|-------|------------------|------|--------------------------|----------------------|-----------|-----------------|----------|-----------|------------------------------------|
| Inside | January | February | March | April | May | June | July | August | September | October | November | December. | Totals |
| Miners, Miners' laborers, Drivers and runners, Doorboys and helpers, Company men, All other employes, Totals, | 1 | | 3 | | | | 5 1 1 8 | 3 2 1 6 | 2 2 1 | 1 1 2 | 3 1 1 5 | 1 4 | 21 15 2 1 1 6 46 |
| Outside. Slatepickers (boys), Slatepickers (men), All other employes, Totals, Grand totals inside and outside, | 1 1 == | | | 1 1 4 | 2 2 2 6 | | | 1 1 ===7 | == 5 | | 5 | | 2 1 4 -7 -53 |

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|---|-----------------|----------|-------|-------|-------|-------|------------------|----------------------|-----------------|-----------------|---------------------------|-----------|-------------------------------|
| Inside | January | February | March | April | May | June | July | August | September | October | November | December. | Totals |
| Miners, Miners' laborers, Drivers and runners, Doorboys and helpers, Company men, All other employes, Totals, | 2 1 1 | | 2 1 | 3 | 1 1 4 | 1 1 1 | 1 3 1 2 | 3 1 1 5 | 3 2 5 | 2 2 1 | 3 2 1 2 8 | 1 1 1 | 24 11 14 1 2 7 |
| Outside. Engineers and firemen, All other employes, Totals, Grand totals inside and outside, | 4 | | 5 | 1 1 4 | 4 | | ···· 7 | 5 | 1 6 | 5 | | 3 | 1 1 2 61 |

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

| | | | | | | Mo | nths | | -== | | | | == |
|--|---------|----------|-------|-------|-----|------|------------------|--------|-----------|---------|---|-----------|--|
| | January | February | March | April | May | June | July | August | September | October | November | December. | Totals |
| American, English Welsh Scotch Irrish, German, Polish, Hungarian Italian, Slavonian, Lithuanian, Austrian, Russian, Greek, | 1 1 1 | i | 1 1 | 2 | 1 1 | 1 | 1 1 1 2 | 3 1 | 1 1 2 | 1 | 1 | 3 | 13 2 3 1 4 1 15 1 2 1 3 2 4 1 |
| Totals, | 3 | 1 | 4 | 4 | 6 | 4 | 8 | 7 | 5 | 2 | 5 | 4 | 53 |

TABLE H.-Nationality of Persons Injured Inside and Outside of Mines

| American, 2 2 1 1 3 2 1 1 English, 2 1 1 1 3 2 1 1 Welsh, 1 1 1 1 1 1 1 1 1 1 Irish. 1 1 1 1 1 1 1 3 2 2 3 1 Hungarian, 1 1 1 1 1 1 1 1 1 1 1 Rish. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | Months. | | | | | | | | | | | | |
|--|--|---------|----------|-------------|-------|------------------|------|---------|--------|-------------|---------|----------|----------|--------|
| English, 2 1 2 2 Welsh, 1 1 1 1 1 1 Irish, 1 | | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Russian, 2 1 | English Welsh, Irish, Polish, Hungarian, Italian, Slavonian, Lithuanian, Austrian, | 1 | 3 | 1 2 1 | 1 2 | 1 1 1 1 | 1 | 1 1 1 1 | 3 | 1 1 2 | 2 | 1 1 | 1 | 13 |

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each person per minute

| Average number of cubic feet per minute provided for each roza | 1, 2666 1, 266 |
|---|---|
| Number of persons employed in- | 122 123 129 129 129 129 129 129 129 129 129 129 |
| Number of cubic feet per minute | 168,910 188,275 28,275 28,275 28,275 28,400 111,400 111,400 111,400 123,85 145,200 151,940 |
| Total quantity of air per minute circulating in all the splits in oubjectivet | 123, 440 373, 840 373, 840 373, 840 370, 940 370, 940 370 370 370 370 370 370 370 370 370 37 |
| Number of cubic feet of air per mine at plain bline at 191ni | 5. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. |
| Number of splits of air currents. | ◆ 4 01 01 □ 4 □ 0 00 □ 10 10 00 □ 01 10 4 □ 10 10 □ 10 0 □ 10 0 □ 10 10 0 □ 10 10 10 |
| Power used | Steam. |
| ngl lo smgN | Gulbal, |
| Water gauge developed—in inches. | 00000000000000000000000000000000000000 |
| Number of revolutions per min- ute | 1100 1120 1220 1220 1220 1220 1220 1220 |
| Depth of blades in feet | 8000830088 41004 41004 6000000 |
| Teet in teet | 01000000000000000000000000000000000000 |
| Diameter of fan in feet | 30 110 110 114 117 117 117 117 117 117 117 117 117 |
| Method of ventilation | Fran, |
| Gaseous or non-gaseous | Gaseous. Non-fas. Gaseous. Gaseous. Gaseous. Gaseous. Gaseous. Gaseous. Gaseous. Gaseous. |
| Kind of opening | Shaft. Shaft. Shaft. Shaft. Drift. Shaft. Shaft. Shaft. Tunnel. Tunnel. Tunnel. Tunnel. Tunnel. Tunnel. Tunnel. Tunnel. Shaft. Shaft. Shaft. Shaft. |
| Names of Operators and Mines | Scranton Coal Co. Johnson No. 1 Saymond No. 2 Raymond No. 1 Reference Ontario Colliery Ontario Colliery Ontario Colliery Contario Colliery Richmond No. 3 Richmond No. 3 Richmond No. 3 Telaware and Hudson Co. Telaware and Hudson Co. Richmond No. 1 Telaware and Hudson Co. Richmond No. 1 Telaware No. 1 Telaware No. 1 Telaware No. 1 Telaware Colliery Richmond No. 1 Telaware Colliery Richmond No. 1 Telaware No. 1 Telaware No. 1 Telaware No. 2 Telakuttis Creek. No. 1 Telakuttis Creek. No. 3 |

| 238 221 219 | 380 380 232 232 | 270 400 656 743 | 323 | 614 |
|---|---|---|--------------------|-------------------------|
| 215 88 88 88 | 243 385 358 | 292 10 66 125 | 86 | 14 30 |
| 111, 639 85, 100 56, 690 63, 280 | 112, 890 156, 320 172, 039 | 106,380 5,800 45,875 95,220 | 34,900 | 8,990 13,300 |
| 106,440 73,100 47,610 19,350 | 96, 150 138, 803 83, 243 | 48, 960 43, 355 92, 895 | 31,700 | 8,600 |
| 112,213 79,000 61,840 53,870 | 106,120 147,631 124,888 | 101,375 5,000 45,825 95,180 | 33,900 | 9,000 13,365 |
| 1.044 | φ6 : | 10 10 01 00 | 10 | |
| Steam, | Steam, | Steam, | | Steam, |
| Guibal, | Guibal, | Guibal, | | Guibal, |
| 4. 1. | 11:23 | 2 11 | | 12 |
| 100 100 18 18 | 104 99 | 2 - 2 - 2 - 3 | | 37 |
| t→101010 | 65.44 73. | 4 44 ro | | 2.5 |
| C-01010 | 4 9 9 | D 10 00 | | 60 |
| 24 118 118 | 14 16 16 | 20 14.5 16 | | 12 |
| Fan, Fan, Fan, | Fan, Fan, Fan, | Fan, Fan, Fan, | Natural, | Natural, Fan, |
| Non-gas., Non-gas., Non-gas., | Gaseous,. Gaseous,. | Gaseous,, Non-gas., Non-gas., | Non-gas., | Non-gas., Non-gas., |
| Shaft, Slope, Shaft, Shaft, | Shaft, Shaft, | Shaft, Tunnel, Slope, | Tunnel, | Tunnel, |
| Hillside Coal and Iron Co. Forest City, No. 2, Forest City, Ciliford, Glenwood, | D., L. and W. R. R. Co. Storrs No. 1, Sforrs No. 2, Storrs No. 3, | Temple Iron Co. Lackawanna, Lackawanna, North West No. 1, North West No. 2, | North End Coal Co. | Mores Hill, Mores Hill, |

TABLE 1.-Operators, location of collieries, railroads, etc.

| | | r(| - | | | | } |
|--------------------------------------|---|---|---|---------------------------------|---|--------------------|---|
| Railroad to Mine. | N. Y., O. and W. | Delaware and Hudson | Erie Erie Delaware and Hudson | D., L. and W. | D., L. and W. N. Y., O. and W. | N. Y., O. and W. | N. Y., O. and W. |
| Post Office | Olyphant, Olyphant, Olyphant, Olyphant, Olyphant, Olyphant, Priceburg, | Scranton, | Forest City, Forest City, Mayfield, | Scranton, | Olyphant Carbondale, | | Carbondale, |
| Name of Superin- tendent | John K. Berkhelser., John K. Berkhelser., John Von Bergen John W. Berkhelser, John K. Berkhelser, John Altken, | Edw. Sharar, Finley Ross, Finley Ross, Fried. Warner, | S. J. Jennings, S. J. Jennings, J. F. Gallagher, | Walter Reese, | Joseph Reese, John W. White, | | Patrick F. Tighe, Carbondale |
| Post Office | *************************************** | Scranton, | Scranton, | Scranton, | Scranton, | Scranton, | Simpson, |
| Name of General Superintendent | Wm. L. Allen, Peckville, | C. C. Rose, | V. L. Petersen, | R. A. Phillips, | F. H. Hemelright, | Edward Roderick, | Lackawanna, Joseph W. Wilce, . Simpson, |
| County | Lackawanna, | Lackawanna, | Susquehanna, Susquehanna, Lackawanna, | Lackawanna, | Lackawanna, Lackawanna, | Lackawanna, | Lackawanna, |
| Names of Operators and Collieries | Scranton Chal Co. Johnson, Raymond, Ontario, Richmond No. 3, Richmond No. 4, Richmond No. 4, Raymond Washery. | Delaware and Hudson Co. Coal Brook. Leggitts Creek, Marvine. Leggitts ('reek Washery,) | Hillside Coal and Iron Co. Forest City. Clifford. Glenwood. | D., L. and W. R. R. Co. Storrs, | Temple Iron Co. Lackawanna, North West, | North End Coal Co. | Morss Hill, |

TABLE 2.-Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder and dynamite used, etc.

| səlum bas səsrod 10 rədmuN | 200000000000000000000000000000000000000 | 342 | 342 | 45 TO ST | 207 | 207 | 67 |
|---|--|---------------------|-----------|--------------------------------------|--------------------------|-----------|----------------------------|
| Mumber of pounds of dynamite | 15, 984 5, 800 78, 300 8, 800 3, 062 | 111,946 | 111,946 | 7,710 22,927 6,186 | 36,823 | 36, 823 | 17,634 |
| Number of kegs of powder used | 14, 502 8, 775 11, 970 6, 600 4, 730 | 46,637 | 46,637 | 16,475 16,955 11,534 | 44,964 | 44,964 | 17,309 |
| Number of non-fatal accidents | ∞671 | 133 | 13 | 00 00 to | 16 | 16 | 4 |
| Number of fatal accidents | w 4440 | 13 | 13 | च । - च | 15 | 15 | 9 |
| Number of employes | 1,142 796 1,034 529 300 115 | 3,916 | 3,948 | 1,082 | 2,650 | 2,668 | 904 |
| Number of days worked. (Totals are averages, not including washeries) | 191 182 182 206 209 193 32 | 169 | 169 | 269 208 258 | 245 | 245 | 221 |
| anot al face to neitenberg fatoT | 402, 627 309, 978 252, 685 165, 913 79, 500 6, 433 | 1,217,136 77,798 | 1,294,934 | 495, 265 380, 069 265, 418 | 1,140,752 | 1,141,048 | 440,408 |
| Number of tons sold to local trade and used by employes, | 4,241 4,875 2,090 2,255 529 141 | 14,134 | 15,962 | 5, 098 3, 425 | 8,523 | 8,523 | 8,531 |
| Number of tons used at collieries for steam and heat. | 40,000 18,250 30,000 7,500 16,450 1,600 | 113,800 5,475 | 119, 275 | 20, 750 87, 510 27, 984 | 136,244 | 136,244 | 21,623 |
| Number of tons of coal shipped to market, | 358, 383 286, 853 220, 595 156, 158 62, 521 4, 692 | 1,089,202 | 1,159,697 | 474,515 287,461 234,009 | 995, 985 | 996.281 | *304,744 |
| County. | Lackawanna,. | Lackawanna,. | | Lackawanna,. | Lackawanna,. | | Susquehanna, |
| Names of Ojærators and Collieries | Johnson, Seranton Coal Co. Johnson, Ontarion, G. B. Hichmond, No. 3, Riverside, Richmond, No. 4, | Raymond Washery. | Totals, | Coal Brook. Leggitts Oreck. Marvine, | Leggitts ('reck Washery, | Totals, | Hillside Coal and Iron Co. |

*Some of the coal mined at Forest City was prepared at Clifford

| Number of horses and mules | 24 | 144 | | 7.9 | 151 | 96 | 9 | 096 |
|---|---------------|----------|--|--|----------|-------------------------------|---------------------------------|---------------|
| Number of pounds of dynamite | 3,365 | 31,138 | 19,244 | 19,492 | 29,853 | 5,500 | 009 | 235, 104 |
| Number of kegs of powder used | 7,039 | 27,567 | 26,736 | 11,019 | 18,166 | 4,050 | 400 | 168,520 |
| Number of non-fatal accidents | ಣಈ | 10 | 13 | 10 63 | 1- | C1 | | 61 |
| Number of fatal accidents | | t- | 6 | 60 60 | 20 | 77 | | en 1.3 |
| Number of employes | 403 | 1,576 | 1,517 | 618 | 1,046 | 416 | 62 | 11,233 |
| Number of days worked. (Totals are averages, not including washerles) | 207 | 192 | 221 | 190 | 190 | 233 | 204 | 208 |
| Total production of coal in tons | 166,865 | 698,567 | 617,796 | 230, 290 182, 117 | 412, 407 | 110,531 | 8,750 | 4, 284, 033 |
| Number of tons sold to local trade and used by employes. | 272 | 8,804 | 5,860 | 8,124 58¢ | 8,710 | 3,178 | 3,300 | 54,337 |
| Number of tons used at collicries for steam and heat. | 12,963 | 55,799 | 46,686 | 14, 183 | 24,491 | 12,710 | 006 | 396, 105 |
| Number of tons of coal shipped to market. | *259,139 | 633, 964 | 565,250 | 207, 983 | 374,206 | 94.643 | 4,550 | 3, \$33, 591 |
| County. | Susquehanna,. | | Lackawanna,. | Lackawanna Lackawanna | | Lackawanna | Lackawanna | |
| Names of Operators and Collieries | Clifford | Totals, | Delaware, Lackawanna and Western R. R. Co. Storrs, | Lackawanna. Temple Iron Co. North West, | Tetals, | North End. North End Coal Co. | Morss Hill, Morss Hill Coal Co. | Grand totals, |

*Some of the coal mined at Forest City was prepared at Clifford.

| ZZ. FIRSI ANI | | 101 |
|---|---|-------------|
| Number of horses and mules | 342 207 207 144 84 151 26 6 | 096 |
| Mumber of pounds of dynamite | 111, 946 36, 823 31, 138 11, 244 29, 853 5, 500 600 | 235,104 |
| Number of kegs of powder used | 46,637 44,964 27,567 26,736 18,166 4,050 400 | 168,520 |
| Number of non-fatal accidents | 113 110 110 120 133 | 61 |
| Number of fatal accidents | E 11 1 2 10 10 4 . | 53 |
| Number of employes | 3,948 2,668 1,576 1,046 1,046 | 11,233 |
| Number of days worked. (Totals are averages, not including washeries) | 169 2455 192 221 190 190 233 204 | 208 |
| Total production of coal in tons | 1, 294, 934 1, 141, 048 698, 567 617, 796 412, 407 110, 531 8, 750 | 4,284,033 |
| Number of tons sold to local trade and used by employ. | 15, 962 8, 523 8, 804 8, 806 9, 710 3, 178 | 54,337 |
| Number of tons used at collieries for steam and heat | 119,275 136,244 55,799 46,686 24,491 12,710 | 396,105 |
| Number of tons of coal shipped to market | 1,159,697 996,281 683,964 565,250 379,250 84,643 4,550 | 3, 833, 591 |
| County | Lackawanna., Lackawanna., Lack. & Susq. | |
| Names of Operators | Seranton (real Co., Delaware and Hudson Co., Delaware and Hudson Co., Delaware, Lackwanna and Western R. R. Co. Temple Iron Co., North End Coal Co., Morss Hill Coal Co., | Totals, |

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| | | | The day of 1 as hely to | | | | | | | | | | | | | |
|--|---|-------------|--------------------------|-------------------|--|---------------------------------------|---------|-------------|------------|--|---------------------------------|---|-------------------------------|---|---------------------------|-------------------|
| | | | Numb | Number of Bollers | oilers | | Locol | Locomotives | | | Suja | əţr | | | | |
| Names of Operators and Collieries. | County. | Cylindrical | Horse power | Tubular | Horse power | Total horse power | Steam | TIA | Electric | Number of steam engines of classes classes represented the classes power | Number of pumps delive | Water to surface Capacity in gallons per mina | Quantity delivered to surface | minute—gallons Number of electric dynamos | Number of air compressors | 2122 0112 01 2212 |
| Johnson, Seranton Coal Co. Johnson, Raymond, Ontatio Richmend No. 5. Richmend No. 4. | Lackawanna,, | F 13 4 0 | 105 655 144 180 | 4800004 | 1,720 975 460 300 400 420 | 1,726 1,080 1,115 444 580 | 6769463 | | ର ଜୀ ର : : | 13 1,1 13 1,1 | 966 905 060 101 290 | 6 5,000 5 4,420 5 2,980 1 1 1,200 1 400 | <u>क्</u> रोनं न | : : | 2122 1 | 2323233 |
| Raymond Washery, | Lackawanna, | 45 | 1,084 | 40 | 4,275 | 5,359 | = | | 9 : | 94 6,7 | 250 | 19 14,380 4 650 | 10, | 515 400 | 6 1 | |
| Totals, | | 45 | 1,084 | 43 | 4,605 | 5,689 | = | | 9 | 102 7,027 | | 23 15,030 | 30 10,915 | - } | 6 1 | 01 |
| Delaware and Hudson Co. Coal Brook. Legitts treek. Marvine. | Lackawanna. | 42.84 | 1,150 | 111 | 1,650 | 1,650 5,150 860 | 4 : : | 122 | 4 | 113 4, E 60 5, 2 39 2, 9 | 517 260 951 | 5 7,200 3 4,800 | 00 5,200 00 3,500 | | 45 | |
| Leggitts ('reck Washery. | . Lackawanna,. | 67 | 2,010 | 2.1 | 5,650 | 7,660 | 44 | 27 | 4 : | 112 12,7 | 728 | 8 12,000 | 00 | 8,700 | 3 11 | |
| Totals, | | 1.9 | 2,010 | 27 | 5,650 | 7,660 | 47 | 272 | 4 | 112 12,7 | 728 | 8 12,000 | 8,700 | 3 | = | |
| Hillside Coul and Iron Co. Forest City. Cifford Glenwood, | Susquehanna,. Susquehanna,. Lackawanna, | | | 128 | 1,420 800 900 | 1,420 800 900 | 21 | | 6 : : | 16 2,3 | 350 495 325 | 2 1,400 4 2,040 11 4,500 | | 250 250 700 | | On. |
| Totals, | | | 1 : | 38 | 3,120 | 3,120 | 3 | | 6 | 32 3,1 | 0 | 17 7,940 | 0 6,150 | 50 3 | | 100 |
| | | | 1 | | 11 | | | | | | | | | | | rc. |

| | : 11 | . :61 | 8 | | : | 14 |
|--|--------------|--|---------|--------------|-------------|---------------|
| - | m | :: | | - | | |
| _ | | 9: | | | | 2 |
| | 1,150 | | | 200 | | 32,015 16 |
| , | 2,160 | 9 10,500 | 10,500 | 200 | | 60 48,130 |
| • | 2 | o | | 285 1 | | |
| 1 | 2,510 2 | 1,306 | 2,036 | 285 | 3 105 | 309 27,861 |
| 8 | | 15 | 24 | t- | 63 | |
| ; | = | | | 61 | | 32 |
| | F | | | | | |
| | 4 | H 00 | | | | 26 |
| 6 | 3,025 3,025 | 1,440 | | 6 580 580 | 125 125 | 22, 389 |
| | 3,025 | 1,440 | | 280 | 125 | |
| 7 | 13 | F- 63 | 10 | 9 | | 138 |
| | | | | | | 3,094 |
| | : | | | | | 112 |
| | гаскамаппа,. | Lackawanna,. Lackawanna,. | | Lackawanna,. | Lackawanna | |
| Delaware, Lackawanna and Western R. R. Co. | Storts, | Lackawanna, Temple Iron Co. North West, | Totals, | North End, | Morss Hill, | Grand totals, |

TABLE 2.- Part 2.

TABLE 3. -Number of each class of employes inside and outside of mines

| | | 52 2 2 0 0 ro | 9 2 | 00 | 1 25- | [gs | · s | 11 97 00 |
|---------|---------------------------------------|--|-----------------|------------|--|-------------------------|---------|--|
| | Grand total inside and outside | 1,142 796 1,034 520 300 115 | 3,916 | 3,948 | 1,082 797 777 | 2,650 1S | 2,668 | 904 |
| | Total outside | 316 333 333 116 93 35 | 1,102 | 1,134 | 331 181 136 | 648 | 999 | 160 |
| | All other employes | 新 名語器記4 | 412 | 462 | 8=3 | 297 | 53 | 11 82 = |
| | Профуксоротя вид офтика | 61 61 67 | 6 | 5. | | 1- | t- | 6363 |
| Outside | Chem) steadold while | 28 8 8 8 a 4 | 176 | N | 95 | 121 | 122 | 22 |
| Out | Slate pickers (boys) | 79 5 4 4 4 8 E | 276 | 276 | 941 | 107 | THS | 222 |
| | Fagincers and firemen | 299920 | 133. | 136 | 888 | S | 62 | 65 x |
| | Blacksmiths and carpenters | 524000 | 9 21 | ¥5 | 12 ≘ × | : 33 | 33 | 5 E |
| | Forward | | t | J. | 01 01 | 12- | 9 | |
| | sin shosinir que | 200 mg 200 mg | 4 | 4 | | | | - |
| | sbizni fatoT | 826 701 413 80 80 | 2,811 | 2,814 | E 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 2, (M) | 2,002 | 744 |
| | segolime refite IIA | 106 101 101 101 101 | 314 | 344 | la : | 15 : | 57 | 2 |
| | Company men | | | | 25 86 118 | 569 | 696 | 28 |
| | Pumpmen | <u>∓</u> 03 × 03 €0 00 | 36 | 98 | 1- = | 17 | 17 | 1 |
| de | Door poks and helpers | 40110 v | 88 | 52 | 3 E 2 8 | 99 | 99 | - #10 |
| Inside | steamur bas stevita | 12년 왕왕년 | 38.7 | 278 | 248 | 261 | 261 | 19 |
| | Miners' laborers | 245 245 205 120 444 34 | 508 | X95. | 72 231 291 | 6622 | 799 | 973 |
| | stonik | 225 225 225 110 110 | 1,051 | 100,1 | 252 | 647 | 617 | 368 |
| | stratists for sessor eriq | ia | ۳۰ <u>:</u> | 35. | t = t = | = : | = | |
| | namara anim massissk | ਜ਼ਸ਼ਵ [-] | 1 | 1 | - | Ŧ : | - | - : |
| | Memorial and | 21-21 | 7 | 1 | - 0101 | 10 | 10 | ::- |
| | County | Lackawanna,. | Lackawanna,. | | Lackawanna, . | Lackawanna,. | | Susquehanna |
| | Names of Operators and Col- perfes | Seranton Coal Co. Johnson, Gaymend, Ontorno, Riversole, Riversole, Richmond No. 3. | KaymondWashery, | Totals, | Delaware and Hudson Co Cord Brook, Loggitts Crook, Marvine. | Leggitts Crook Washery, | Totals, | Hullsube Coat and Iron Co. Forest City. |

| 6 | ا د ا | - | | ا و ا | ا ی ا | 623 | 62 |
|--------------|---------|---------------------------------|----------------------------|---------|--------------------|------------------------------------|---------------|
| 269 | 1,576 | 1,517 | 618 425 | 1,046 | 41 | 9 | 11,233 |
| 98 | 367 | 254 | 156 | 231 | 76 | 15 | 2, 743 |
| 43 | 199 | 131 | 32 | 100 | 26 | | 1,230 |
| | 4 | 63 | 63 01 | 4 | 1 | - | 83 |
| 15 | 49 | 17 | 112 | 18 | 10 | 9 | 402 |
| 15 | 51 | 68 | 50 | 69 | 21 | 61 | 595 |
| ත | 37 | 45 | 133 | 21 | 12 | 60 | 312 |
| 63 | 23 | 10 | 0.00 | 15 | 4 | 1 | 144 |
| - | 00 | 23 | | 2 | - | - | 67 |
| - | 1 | : | 러디 | 62 | н | - | 6 |
| 183 | 1,209 | 1,263 | 462 353 | 815 | 340 | 47 | 8, 490 |
| 16 | 20 | 53 | 11 | 58 | 12 | | 544 |
| - | 123 | 156 | 25 | 13 | 48 | 1 | 029 |
| 9 | 17 | 9 | 5-00 | 10 | 22 | | SS |
| ro | 24 | 67 | 155 | 21 | 00 | 61 | 221 |
| 101 | 132 | 116 | 909 | 100 | 83 | 00 | 1,032 |
| 1 89 | 433 | 464 | 161 | 303 | 130 | 8 | 2,920 |
| 6.1 | 424 | 430 | 151 | 275 | 109 | 20 | 2,936 |
| <u>:</u> | : | 10 | | | - | | 63 44 |
| <u>:</u> | 7 | 2 | - : | 7- | - | | ļ. |
| - | 10 | 7 | 20 03 | 44 | H | - | 282 |
| Lackawanna,. | | Lackawanna,. | Lackawanna, Lackawanna, | | Lackawanna,. | Lackawanna,. | |
| Glenwood, | Totals, | D., L. and W. R. R. Co. Storrs, | Lackawanna, North West, | Totals, | North End Coal Co. | Morss Hill Coal Co. Morss Hill, | Grand totals, |

TABLE 3.—Recapitulation

| 3,948 2,668 1,576 1,517 1,046 62 | 11,233 |
|---|---------|
| 1,134 666 367 254 231 76 | 0.1 |
| 462 312 199 131 100 | 1,230 |
| | 28 |
| 181 121 49 17 18 10 6 | 402 |
| 276 108 51 68 69 21 | 595 |
| 136 7.9 24 12 12 3.7 3.7 | 312 |
| 33 23 10 10 10 10 | 144 |
| N 4 8 8 8 9 8 9 8 | 61 |
| 4 0 0 | 6 |
| 2,814 2,002 1,209 1,263 815 340 47 | 00 |
| 344 57 50 50 11,2,2,3 | |
| 148 | |
| 36 177 177 10 10 | % |
| 88 9 4 2 1 2 2 2 2 2 3 | 221 |
| 387 132 132 116 100 33 | 1,032 |
| 908 662 483 464 303 130 20 | 2,920 |
| 1,031 647 424 430 275 109 20 | |
| e4 6 L | 34 |
| ×415111 | 17 |
| | 8.6 |
| Lackawanna Lackawanna Susq. & Lack. Lackawanna | |
| Scranton Coal Co. Delaware and Hudson Co. Hilside Coal and Iron Co. D. L. and W. R. R. Co. Temple Iron Co. North End Coal Co. Morse Hill Coal Co. | Totals, |

TABLE 3.—Part 2.

| | Names of Operators and Collieries County | Johnson, Raymond, Raymond, Raymond, Richmond No. 3, Riverside No. 4, | Coal Brook. Leggitts Creek. Marvine. | Hillside Caal and Iron Co. Susquehanna, Clifford Sissuehanna, Sissuehanna, Glenwand. | Storrs. D. L. and W. R. R. Co. Lackawanna,. | Lackawanna, Temple Iron Co. Lackawanna, North West, Lackawanna, | North End Coal Co. Lackawanna, | Morss Hill Coal Co. Lackawanna. |
|----------------------------------|--|--|---|--|---|---|--------------------------------|---------------------------------|
| | January Pebruary | 18 16 16 16 17 18 19 19 19 | 28 88 88 88 88 88 88 88 88 88 88 88 88 8 | 15 14 11 9 | 71 81 | 14 16 13 13 | 21 23 | |
| | Матећ | 24.24.24 10.10 | 882 | 17.00 | = | 10 | 24 | 326 |
| Num | lingA | 82558° | : :::::::::::::::::::::::::::::::::::: | 21. 13. 13. 13. 13. 13. 13. 13. 13. 13. 1 | 39 | 16 | 12 | 11 |
| Number of Days Worked in Breaker | əunr | 22 22 22 22 22 22 23 23 23 24 25 25 25 25 25 25 25 25 25 25 25 25 25 | 10 10 10 10 10 10 10 10 10 10 10 10 10 1 | 25 25 25 16 17 | 21 22 | 17 17 17 18 | 21 16 | 20 17 |
| ys Worke | July | 624646 | 23 18 23 | 15 16 12 | 17 | 13 | 13 | 53 |
| d in Bre | tsuguA | 66644 | 23 17 20 | 13 13 13 | 12 | 16 | 15 | 17 |
| aker | September | SE 1-154 | 25 24 21 22 24 | 12 2 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 | 19 | 15 | 16 | 53 |
| | Coctober — — — — — — — — — — — — — — — — — — — | 146 | 21 15 15 19 | 14 11 11 11 11 11 11 11 11 11 11 11 11 1 | 19 1 | 16 1 | 22 2 | 22 24 |
| | December | 18. 18. 18. 11. 11. 11. 11. 11. 11. 11. | 23 20 16 18 17 20 | 18 20 17 19 12 16 | 19 18 | 16 17 | 23 18 | 4 21 |
| | Total | 191 182 206 209 193 32 | 269 205 258 | 221 207 147 | 221 | 190 | 233 | 204 |

TABLE 4.-Fatal accidents inside and outside of mines

| | Nature and Cause of Accident in Brief | By cars. Squeezed between car and pillar on gangway road while on his way | home. By fall of rock while assisting his miner to stand a discharged prop near the face | of chamber. By cars. He was engaged in cleaning rall- road cars and stepped backward on an- other track and the engine instantly killed him. It is supposed that on account | of the noise in the breaker he failed to hear the locomotive. Outside. By cars, Stepped directly in front of a car of supply coal. Outside. | By fall of rock. Examined place before starting to work in the morning, but it sums bove contained a slin that they | failed to detect. Started to work too soon after fring a blast. | By fall of roof. The miner tried to take it down and after falling pronounced it safe. It contained a slip that he did not de- | By cars. A car became derailed at a switch and pinioned him against a prop. His leg and pinioned him against a Monch of | By fall of coal. Started to work without making through examination of place. | Internanty injured. By fall of rock while he and his miner were standing a prop. Killed instantly. | By railroad cars. A runaway car bumped the car he was on and threw him under the wheels. He was instantly killed. Outside. |
|--|---------------------------------------|---|--|--|---|---|---|--|---|---|---|--|
| TO OF HILLIES | County | Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawannu,. | Lackawanna,. | Lackawanna,. | Susquehanna, | Lackawanna,. |
| LABLE 4.—Fatal accidents inside and odeside of innes | Name of mine | Lackawanna, | Storrs No. 3, | Richmond No. 3,. Lackawanna,. | Richmond No. 3,. | Storrs No. 3, | Coal Brook, | Storrs No. 3, | Storrs No. 2 | Johnson No. 2, | Forest City, | Ontario, |
| 2 | Number of orphans | ro | : | - | : | : | : | i | : | 4 | : | 4 |
| nen | awobiw to redminN | - | | pred . | : | : | : | | | H | | н |
| 100 | Married or single | M. | 92 | M. | oi. | υż | υż | υż | δά | M. | υż | M. |
| al | Age | 45 | 21 | 45 | 30 | 24 | 22 | 33 | 16 | 44 | 25 | 1- |
| Бый 4.—га | Occupation | Miner, | Laborer, | Company laborer. | Laborer, | Laborer, | Laborer, | Laborer, | Brakeman, | Miner, | Laborer, | Slate-picker, |
| TA | Nationality | Polish, | Lithuanian, | Austrian, | Polish, | English, | Italian, | Polish, | American. | Polish, | Polish, | Austrian, |
| | Name of Person | George Lucoshic, | Charles Grasais, | John Wanish, | Powell Atchue, | Alonzo Summers, | Bruno Malaio, | Walter Poweskie, | Charles Atkinson, | Frank Cheseny, | William Macilavige, | John Kugor, |
| | fine of accident | Jan. 7 | ø, | 16 | Feb. 6 | March 1 | -En | 13 | 16 | April S | 04 | C) |

TABLE 4.—Continued

Date of accident

April

| Nature and Cause of Accident in Brief | <u>щ</u> | the roof fell on him. By cars. He stumbled while getting off | the wheels passed over his body. He was found dead in the Jilly pit. The manner in which he came to his death is a mystery. At the Jury's inquest, several employes in that vicinity failed to | щ | By fall of roof. While standing a discharged prop from a blast the roof fell on him. | By fall of roof. He had neglected to take down or stand a prop under it. | H | that threw the timber restlind that he looked down and saw no one, but as the piece was falling the victim came out from under the breaker through a place that was never used and was struck. | m | getting on tractured his skull. By falling into machinery. He ellmbed on top of a dust fan casing to get a broom. The casing broke and he fell into the fan. | Outside. By fall of rock that slid down from the gob where he was robbing a pillar. He died from a lacerated leg. |
|---------------------------------------|----------------|---|---|----------------|--|--|----------------|--|-------------------------|--|--|
| County | Lackawanna,. | Lackawanna,. | Lackawanna, . | Susquehanna,. | Susquehanna | Lackawanna,. | Lackawanna,. | | Lackawanna,. | Lackawanna,. | Lackawanna,. |
| Name of mine | Coal Brook, | Marvine, | Lackawanna, | Forest City, | Forest City, | Storrs No. 3, | Storrs, | | Storrs No. 2, | Leggitts Creek, . | North West, Lackawanna, |
| Number of orphans | 4 | : | | : | 9 | 57 | 1 | | : | : | 63 |
| swobiw to tedmuN | - | : | | H | _ | : | 1 | | | | H |
| Married or beirraM | M. | vi | vi | M. | M. | * | M. | | iń | υż | M. |
| 93.A | 41 | 13 | 15 | 54 | 40 | 43 | 36 | | 18 | 10 | 36 |
| Occupation | Laborer, | Motor-runner | Bar-tender, | Miner, | Miner, | Miner, | Miner, | | J u n ction- tender. | Slate-picker, | Miner, |
| Varionality | Welsh, | American, . | American, . | English, | Slavonian, . | Irish, | Polish, | | American, . | American, . | Russian, |
| Name of Person | Phillip Davis, | William Davis, | Raymond Fields, American, . Bar-tender, | Thomas Hudson, | Maxon Chekofski | Anthony McAndrew, | John Roginskl, | | William Yambo, | Wilfred Gerrity, | Andrew Nimitto, |
| | 35 | co | ဖ | 20 | 96 | 21 | 27 | | 63 | 60 | 9 |

*Widower.

June

| By fall of roof while he was engaged assisting a miner and laborer to stand a | discharged, popul, ints spine was inattured, and fall of roof that gave no indication of danger. It contained a smooth back. By cars. He was riding on top of a loaded prop, car and was supergade between low work out the noves He died the same | day. By fall of roof that he failed to bar down. By fall of roof that gave no indication of danger. He had examined after blasting | and started to work. Instantly killed, By cars. It is supposed that a car on which he was riding into the foot of a plane became derailed, throwing him off. He was dragged about 50 feet and found in an moonseions state with a fractured | skull from which he died. By fall of rock in a tunnel on his way home from work on the main road. | By fall of rock that gave no indication of danger and contained a smooth back. In- | stantly killed. By cars. The motor in pushing a car into the face became derailed and caught his | leg against the bottom rock, by By cars. A miner, by blasting, started a car which ran onto the gangway, killing | Merrigan, By fall of roof. He disregarded the orders of the miner after blasting to wait, until | he examined before starting to work. By fall of roof. He had examined the roof only a short time previous and | | conveyors. Outside. By explosion of fire-damp. He disregarded the order of the fire-boss and walked over a danger signal into a pocket of fire- | damp. By fall of bell roof that gave no indication | By danger. By faction for bell roof that gave no indication | By blasting. He was lighting a sulphur squib in a hole where there was a feeder. | The suppure gains set the feeder on and discharged the blast. By fall of bell roof. It was examined only a short time previous and thought safe. |
|---|--|---|---|--|--|---|--|---|--|------------------|--|---|--|--|---|
| Lackawanna,. | Lackawanna, | Susquehanna,. Lackawanna,. | Lackawanna, | Lackawanna, | Lackawanna,. | Lackawanna,. | Lackawanna, | Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna, . | Susquehanna,. | Lackawanna,. | Lackawanna,. | Lackawanna. |
| Storrs No. 2, | Leggitts Creek, . North End, | Forest City, Leggitts Creek, . | Johnson No. 2, | Glenwood, | Leggitts Creek, . | Leggitts Creek, . | Riverside, | Johnson No. 1, | Storrs No. 2, | Riverside, | Marvine, | Forest City, | Ontario, | Richmond No. 3, | Lackawanna, |
| vi | M. 1 1 S | M. 1 3 M. 1 1 | : : : : : : : : | M. 1 3 | | M. 1 8 | | M. 1 4 | M. 1 5 | : : : : | | M 1 5 | M. 1 3 | M. 1 3 | : : |
| 22 | 45 28 | 40 | 16 | 53 | 24 | 36 | 17 | 47 | 42 | 15 | 57 | 44 | 42 | 35 | 32 |
| Laborer, | Miner, | Miner, | Header, | Miner, | Miner, | Laborer, | Driver, | Laborer, | Miner, | Slate-picker, | Miner, | Laborer, | Miner, | Miner, | Laborer, |
| Polish, | Polish, | Russian, | American, . | Polish, | German, | Irish, | American, . | Polish, | Polish | Italian, | Russian, | Polish, | Greek, | Welsh, | Lithuanian |
| Anthony Kroperoskie, | Stanley Mutzcavage, Michael McNamara, | Anthony Powleski, Sidney Davis, | Alfred Evans, | George Bosaki, | Albert Klein, | Patrick Moran, | James Merrigan, | John Metchasfiski, | Jacob Lipko, | Paverto Mario, | Joseph Zubliss, | August Komenski, | litzka, | Thomas Davis, | John Galenski, |
| nthon | tanley | idney | Alfred | eorge | lbert | atrick | ames | ohn N | acob | averto | oseph | ugust | Mike Ritzka, | homas | ohn G |
| 12 A | ω ω ω ω | 11 A | 18 A | 21 G | 24 A | 24 P | 5 J. | 8 | 8 | 12 P | 23 J | 28 A | 28 3 | I- | 21 J |
| June | July | | | | | | Aug. | | | | | | | Sept. | |

TABLE 4.-Continued

| Nature and Cause of Accident in Brief | Щ | walked directly into the blast. By fall of roof. He went under some treacherous roof to mine out some loose | coal, when a piece fell on him. By fall of coal. This coal had been examined by his miner and another laborer | and thought to be safe. By falling down shaft. He was arranging lines to timber by and it is supposed he stumbled while crossing the shaft on a | By blasting. He was firing two blasts at the same time and it is supposed that he thought they had missed and he estimated | just as they exploded. By fall of roof. He had fired four successive blasts and returned to examine, | when a large slab fell on him. By fall of rock. He was shoveling coal to the car when a large slab fell, killing him inerantly. The nock was thurst to | hun instanty, the root was noted to be safe, but it contained a thin seam and smooth back that could not be detected. By fall of roof. He overlooked a treacherous stone in his examination and started | to work uncer it, when it rel on him. By cars. He tried to prevent a mule from stepping in front of a moving rock car, stumbled in his effort and fell under the car. |
|---------------------------------------|-------------------|---|--|---|--|---|---|---|---|
| County | Lackawanna,. | Susquehanna,. | Lackawanna,. | Lackawanna,. | Lackawanna, . | Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna, . |
| Name of mine | Marvine, | Forest City, | North End, | Marvine, | North End, | North West, | Ontario, | Johnson No. 2, | North End, |
| Number of widows | | 1 6 | 1 6 | | 1 4 | 1 2 | : | 1 1 | |
| Married or single | ž Ž | M | M. | υi | M. | M. | δū | M. | vi |
| Age | 12 | 42 | 41 | 225 | 50 | 28 | 20 | 65 | |
| noitsquooO | Runner, | Miner, | Laborer, | Sinker, | Miner, | Miner, | Laborer, | Miner, | Company man. |
| Nationality | American, . | Lithuanian, | Irish, | American, . | Polish, | Russian, | Hungarian, | Polish, | Scotch, |
| Name of Person | James Gillhooley, | Stephen Grebooski, | Martin Barrett, | James Shovelen, | Michael Suteski, | Andrew Yurko, | Andrew Yanko, | Costic Smeiguski, | Robert Mitchel, |
| Z | ames | stephe | Martir | ames | Micha | Andre | Andre | Costic | Rober |
| | 23 J | 23 | 25 I | 2 3 | 13 1 | 10 | 22 | Z | 25 1 |
| Date of accident | Sept. | | | Oct. | | Nov. | | | |

| 140. | 44. | | | | | 1 |
|---|--|---|---|---|---|---|
| Irish, Miner, 62 M. 1 6 Coal Brook Lackawanna, By fall of roof. He failed to bar down a | By fall of roof. He was stooping to pick | | щ | Щ | ignited a small pocket of gas, and in his effort to escape he must have fallen under the motors | |
| Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna,. | | |
| Coal Brook, | Dec. 8 Jacob Philpot, American, . Laborer, 24 M. 1 1 Coal Brook, Lackawanna, | 12 Frank Smith, Polish, Laborer, 25 S Richmond No. 3, Lackawanna, | American, . Miner, 23 M. 1 2 Leggltts Creek Lackawanna, . | Leggitts ('reek, Lackawanna,. | | |
| 9 | | : | 63 | : | | |
| 7 | - | | | | | |
| M. | M. | υż | M. | vi2 | | |
| 62 | 24 | 153 | 23 | 20 | | |
| Miner, | Laborer, | Laborer, | Miner, | Alfred Bell, American, . Motor-engi- 20 neer, | | |
| Ī | • | : | | | | _ |
| Lish, | American | Polish, | American | American | | |
| | ot, | n, | | | | |
| Nov. 29 Anthony Golden, | Jacob Philpe | Frank Smith | 15 Robert Lake, | Alfred Bell, | | |
| 29 | 00 | 12 | 15 | 21 | | _ |
| Nov. | Dec. | | | | | |

TABLE 5.-Non-fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | By fall of top coal while working out loose coal. Injured internally. | By fall of roc | P | H | | B | both legs. By fall of roof. Was working out a blast before thoroughly examining. Spine frac- | Щ | coal after a blast. Back injured. By cars. Was riding on a motor that became devailed at a switch. He was thrown against the rib and received a | | | and broke his collar bone By cars. A mule kicked him and he fell alongaside the car. The oil box caught | him and broke his leg. In barring down a piece of roof over on him, breaking his leg. |
|---------------------------------------|---|-------------------|---------------|---------------|---------------|-----------------|---|-------------|--|---------------|---|--|---|
| County | Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna, | Lackawanna,. | Lackawanna, | Susquehanna _L . Lackawanna, . | Lackawanna, | Lackawanna, |
| Name of mine | Marvine, | Storrs No. 3, | North End, | Storrs No. 2, | Storrs No. 2, | Leggitts Creek, | Lackawanna, | North West, | Storrs No. 1, | Ontario, | Forest City, Leggitts Creek, | Storrs No. 3, | Coal Brook, Lackawanna, |
| Married or single | M. | M. | M. | υż | υż | M. | M. | M. | αi | υż | ĭ. ≅w | vi | vi |
| Age. | 40 | 4 | 55 | 19 | 16 | 45 | 24 | 52 | 19 | 18 | 31 | 17 | 30 |
| pecabstion | Miner, | Miner, | Company miner | Motorman, | Driver, | Miner, | Miner, | Miner, | Brakeman, | Driver, | Driver, | Driver, | Miner, |
| Vationality | Russian, | Welsh, | American, | American, | American, | Welsh, | Polish, | Polish, | American, | Slavonian, | Polish, | English, | Welsh, |
| Name of Person | Joseph Belfski, | Richard Williams, | John Murphy, | Hayden John, | David Thomas, | John Hughes, | Michael Prebula, | John Guba, | Charles Perkins, | John Spragor, | Charles Roshic, Frank Brown, | John Hall, | Evan Bateridge, |
| Date of accident | Jan. 5 | 6 | 16 | 21 | Feb. 4 | 9 | o | o, | 20 | 24 | March 9 | 20 | 22 |

| By falling down shaft. Instead of waiting for the bucket to come to a stop or go through the opening, they showed it onto a plank where Twist was standing and the jar broke the plank, throwing him down the shaft 48 feet, fracturing his | By cars. Attempted to mount the head end of a trip of cars and fell under. Arm | bany accrated. By blasting. He was holding a door open while they were firing five holes at the same time. The concussion threw him | and dislocated his arm. By fall of rock. A small piece of rock fell, breaking one of the small bones of the | ankle, which was later ampurated. By fall of boney, while drilling a hole. His thick was broken | Cingli was blocking. Frequency of a symmetric control of co | | leg. By fall of rock, while examining after a black Law fractured | By cars. He was riding on the bumpers and fell under the car. The oil box frac- | tured his leg. By a fall of roof that he had examined and thought safe. His leg was frictured. | By cars. He stumbled while unhitching his mule, and the wheels of the car fractured | his leg. By blasting. A spark from a lamp came in contract with a broken carridge. Their holdes and arms were burned. | Had his arm over the mule's bridle when it suddenly raised its head and fractured | his arm. He discheyed orders of the driver-boss to unhitch cars on top of slope until they unhit or cars on to a stop; a car became derailed and | fractured his ankle. By blasting. A miner in the next chamber the blast that broke through a blind cross-out and fractured his arm in two | places. Was on an electric motor and when he came near his door he attempted to open it, but got caught, fracturing his ankle, which was afterward amputated. |
|---|--|--|---|--|--|------------------|--|---|---|---|--|---|---|--|---|
| Lackawanna, . | Lackawanna,. | Lackawanna,. | Susquehanna,. | Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna, | Lackawanna,. Lackawanna,. | Lackawanna,. | Lackawanna,. | Lackawanna, | Susquehanna,. |
| | Creek, | : | | : | : | | : | 1, : | : | | | : | : | . : | |
| Š. | | s No. 3, | rd, | s No. 9 | Lackawanna, | Raymond, . | North End, | son No. | No. 3. | Glenwood, . | | Lackawanna, | rio, | Brook, | Forest City |
| Storrs | Leggitts | Storrs | Clifford, | Storrs | | | | Johnson | Storrs | Glenv | Ontario, Ontario, | Lack | Ontario, | Coal | Fores |
| M. | w | M. | M. | M. | M. | Ĭ. | M. | vi | M | σâ | iv K | ò | ñ. | ů, | U. |
| # | 16 | 4 | 25 | 44 | Ţ | 46 | 45 | 17 | 20 | 17 | 62 | 17 | 17 | 16 | 17 |
| Sinker, | Driver, | Miner, | Laborer, | Miner, | Laborer, | Miner, | Miner, | Driver | Brattice-man, | Driver, | Miner, | Driver | Headman, | Driver, | Door-tender, |
| English, | American, | Lithuanian, | Polish, | Polish, | Welsh, | Polish, | Irish, | American, | Welsh, | English, | Russian, | Hungarian, | Welsh, | American, | Slavonian, |
| 28 Thomas Twist, | John Campbell, | Charles Zachoviz, | George Doses, | John Loshaski, | Charles Williams, | Mike Honeychuck, | Thomas Walsh, | Matthew Scott, | David S. Jones, | Michael Hall, | (Michael Julian, | Joseph Froine, | Edward Davis, | Bernard McNulty, | Mike Timko, |
| 80 61 | 31 | 9 | 90 | 12 | 53 | 63 | ಣ | 12 | 16 | 16 | 22 | 9 | 17 | 8 | .% |
| March | | April | | | | May | | | | June | | July | | | |

TABLE 5.-Continued

| Nature and Cause of Accident in Brief | He was running a motor over a branch when the end of the latch flow in and | fractured his arm. By cars. He was about to sprag an empty Car when it became derailed fracturing | his ankle. By fall of proof. He was pushing a car | fell, fracturing his leg. By an explosive cap that he threw on the floor thinking it was neoless. The ex- | garded order the dan | raul into a pocket of gas. Was severely burned. By mule suddenly turning and throwing | him against the car. His leg was fractured. By a blast that he thought missed; when he returned it exploded, fracturing his | leg. By fall of roof that gave no indication of danger and that contained a smooth back. | Was seriously injured, The miner was driving a spike in a tie Shulkitis was holding. The miner did | not strike the spike squarely and the head flew off. destroying Shukktils's eye. By cars. While removing the block to start the car from the face it became densited. | and fractured his leg. By blasting. He returned to what he thought was a missed shot, when it exploded, fracturing his arm. |
|---------------------------------------|--|--|---|--|----------------------|---|---|--|--|---|--|
| County | Lackawanna, . | Susquehanna, | Lackawanna, | Lackawanna,. | Lackawanna,. | Susquehanna,. | Lackawanna,. | Lackawanna,. | Susquehanna,. | Lackawanna,. | Lackawanna,. |
| Name of mine | Coal Brook, | Clifford, | Storrs No. 3, | Lackawanna, | Marvine, | Clifford, | Leggitts Creek | Ontario, | Clifford, | Storrs No. 3, | Marvine, |
| Married or single | υż | vi | ωi | vi | <i>tr</i> 2 | vi | υi | M. | υi | υż | Ä – |
| 93V | 18 | . 19 | 3 | 21 | 50 | 19 | 0+ | t~ 65 | 24 | 98 | 41 |
| Occupation | Motorman, | Runner, | Laborer, | Miner, | Laborer, | Driver, | Miner, | Miner, | Laborer, | Miner, | Miner, 41 |
| Matlonality | American, | American, | Polish, | Polish, | Russian, | Polish, | Lithuanian, | Polish, | Polish, | Welsh. | American, |
| Name of Person | Joseph Wagner, | Daniel Rodman, | Stanley Lackeswitch, | Alex. Winkofski, | Peter Plowska, | Anthony Zecus, | Anthony Gobliski, | George Obshute, | Lots Shulkitis, | William B. Jones, | Thomas Hodgson, |
| Date of accident | July 24 | . 92 | 31 | Aug. 11 | 533 | S | 26 | 88 | Sept. 2 | 10 | ω |

| | Tractured. By machinery. He was prying an aircompressor off the centre with a bar. The end of the bar came in contact with another moving compressor, fracturing his | <u>.</u> | By cars. He fell under, injuring his leg | щ —. | fractured. By fall of rib coal. While barring down, it all over and fractured his let | By fall of rock sliding from | By fall of coal orders and | stood a prop. His leg was fractured By fall of rock while working out a shot. | Щ | <u>ш</u> | Ä. | Jured. . Bured by powder. He was taking a car into a chamber with an electric motor and in passing over a quantity of powder, the | face and limbs. By an explosive cap. While playing w | | <u>щ</u> | <u>щ</u> | <u>m</u> | broken. By riding on the bumpers. His foot got caught, causing lacerations. |
|--------------------|---|-----------------|--|---------------|--|------------------------------|----------------------------|---|-----------------|---------------|---|--|---|-------------------|-----------------|-----------------|-------------------|---|
| Lackawanna, | Lackawanna, | Lackawanna | Lackawanna, | Lackawanna, | Lackawanna,. | Lackawanna,. | Susquehanna, | Lackawanna, . | Lackawanna, | Lackawanna, | Lackawanna, | Susquehanna, | Susquehanna,. | Lackawanna | Lackawanna | Lackawanna, | Lackawanna, | Lackawanna |
| Johnson No. 1, | Leggitts Creek, | Leggitts Creek, | Marvine, | Ontario, | Raymond, | Lackawanna, | Forest City, | Johnson No. 1, | Leggitts Creek, | North West, | Ontario, | Forest City, | Clifford, | Storrs No. 2, | Leggitts Creek, | Richmond No. 3, | Marvine, | Storrs No. 3, |
| ŝ | M. | M. | υż | υi | M. | M. | ĭ. | M. | M. | M. | M. | vi | v2 | vi - | υż | × | ž. | vi |
| - 28 | 23 | . 44 | . 16 | . 21 | . 45 | . 46 | 3 | 20 | - S | - 53 | . 34 | . 17 | | - 21 | - 8 | ee ee | - F | 16 |
| Laborer, | Engineer, | Rock miner, | Driver, | Miner, | Miner, | Laborer, | Laborer, | Miner, | Laborer, | Laborer, | Miner, | Brakeman, | Footman, | Runner, | Miner, | Laborer, | Miner, | Driver, |
| Polish, | American, | Irish, | American, | Italian, | Polish, | Austrian, | Polish, | Polish, | Lithuanian, | Polish, | Slavonian, | Austrian | Polish, | American, | Welsh, | Polish, | English, | English, |
| 7 John Burvtzki, | David Jones, | Lawrence Hart, | Edward Harrington, | Dom Muturvey, | George Meifiskl, | 14 John Zovic, | William Zekenski, | Vicheck Verrisk | James Hoppins, | Frank Griger, | Edward Zelinki, | Michael Powman, | Anthony Sigursis, | Thomas Griffiths, | David Simons, | Frank Rostesky, | Herbert Woodruff, | Gardner Telford, |
| | ======================================= | 23 | 4 | - | 10 | 14 | 16 | 63 | 9 | 7 | ======================================= | 20 | 83 | 2 | 23 | 12 | 83 | 8 |
| Sept. | | | Oct. | | | | | Nov. | | | | | | | | Dec. | | |

CONDITION OF COLLIERIES

| | Ventilation. | Drainage. |
|--|--|--|
| Scranton Coal Company Johnson, Raymend, Ontario, Richmond No. 3, Riverside, Richmond No. 4, | Good. Good. Good. Good. Fair. Fair. | Good. Good. Good. Good. Fair. Fair. |
| Delaware and Hudson Company. Coal Brook, Leggitts Creek, Marvine, | Good. Good. Good. | Good. Fair. Good. |
| Hillside Coal and Iron Company. Forest City, Clifford, Glenwood, | Good. Good. Fair. | Good. Fair. Fair. |
| Delaware, Lackawanna and Western R. R. Company. | Good. | Good. |
| Temple Iron Company. Lackawanna, North West, | Good. Fair. | Fair. Good. |
| North End Coal Company. | Fair. | Fair. |
| Morss Hill Coal Company. | Fair. | Fair. |

The conditions as to safety at all the collieries are good.

IMPROVEMENTS

SCRANTON COAL COMPANY

At Richmond No. 3 a new shaft, known as No. 2 shaft, has been sunk from the surface to No. 3 Dunmore vein. It is 12x30 in the clear, with two hoistways and an upcast. The depth from the surface is 519 feet, 70 feet of which, from the surface down through a bed of quicksand and other porous material, is lined with re-inforced concrete. This concrete also forms the foundation for a steel tower, built by the Fort Pitt Bridge Co., and connected with the upcast by a masonry air duct is a thirty foot Guibal fan driven by a 24x48 single engine. The hosting engines are 24x48, first motion, built by the Finch Mfg. Company, and are housed in a brick building 40x41.

The old steam plant is being replaced by a brick boiler house 36x54, having a steel truss roof covered with corrugated iron. Steam will be furnished by three 200 H. P. Maxim boilers.

The surface landing of the shaft, as well as the foundation of all buildings, have been raised to a point seven feet above the surrounding surface of the ground as a precaution against high water from the river.

As soon as these improvements are completed, probably about the first of April next, the present hoisting shaft will be abandoned for that purpose and used as a second opening and supply shaft. Extensive inside alterations and improvements have been made to meet this change.

DELAWARE AND HUDSON COMPANY

Coal Brook Colliery.—One 13-ton and three $4\frac{1}{2}$ -ton electric motors have been installed at the Wilson Creek opening. Also one 17 foot and one 20 foot fans to ventilate the Grassy and Top Coal workings, the electric power being supplied from the power plant at the breaker.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY.

Storrs Colliery.—A nest of eight boilers with a total horse power of 2400. Also one locomotive boiler at No. 3 plant rated at 125 horse power. Also No. 1 shaft has been sunk from the Big Vein to the Dunmore a distance of 330 feet.

TEMPLE IRON COMPANY

Lackawanna Colliery.—The 12x30 shaft commenced in 1903 has been completed; it was sunk from the surface to the Dunmore vein a distance of 580 feet, and the veins are now being opened out.

The Lillibridge shaft, which was sunk from the surface to the Grassy vein, has been moiled out where it was too small, and is now being sunk from the Grassy to the Dunmore vein; it is 10x12 feet, and large enough for one cage and counter balance.

Permanent head frames have been erected over each shaft, and a brick engine house 38x60 feet built to accommodate the engines of

both shafts.

A pair of 26x48 foot hoisting engines have been ordered from the

Exeter Machine Works, and are now about completed.

An 8x20 foot fan, driven by an 18x30 inch engine has been erected at the head of of the main shaft to ventilate the workings of the Dunmore vein.

The tracks have been laid between the breaker and the shaft, also

the branches and connections with the new shaft.

All of these improvements are for the purpose of developing a tract of coal that it was impracticable to take through the present openings.

The 250 H. P. Maxim boilers have been erected at the breaker in connection with the present plant, and an 8 inch steam line has been

laid between the boiler plant and the new shaft.

Mine Foremen's Examinations.

During the year certificates of qualification were granted as follows:

Mine Foremen

Alfred Baileys, David Parry, Fred K. Derby, John A. Robinson, Thomas Muldowny, Joseph W. Wilce, James W. Nicholls, George S. Cooper, Richard Walsh, David B. Thomas, David M. Williams Thomas Butler.

Assistant Mine Foremen

Patrick McNulty, David Morris, Craddoc Morris, James Watson, David P. Thomas, Evan B. Williams, William T. Pearce, Thomas R. Jones, James Cook, Stephen C. Middleton, Michael Kane, John Davison, James B. Loftus, Martin J. McGowan, William S. Davis, William F. McCrone.



Second District

LACKAWANNA AND WAYNE COUNTIES

Carbondale, Pa., February 2, 1906.

Hon, James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to submit herewith my report as Inspector of Mines for the Second Anthracite District, for the year ending December 31, 1905.

The usual tables of statistics accompany the report, showing that there were 554,409 tons more of coal mined during the year 1905 than in 1904. Also that there was an increase in the number of fatal accidents of 14.3 per cent.

Respectfully submitted,

P. J. MOORE, Inspector.

SUMMARY OF STATISTICS

| Number of collieries, | 20 |
|--|-----------|
| Number of mines, | 46 |
| Number of mines in operation, | 46 |
| Number of tons of coal shipped to market, | 3,866,495 |
| Number of tons used at mines for steam and heat, | 281,132 |
| Number of tons sold to local trade and used by employes, | 44,976 |
| Number of tons produced, | 4,192,603 |
| Number of persons employed inside of mines, | 7,554 |
| Number of persons employed outside, | 2,361 |
| Number of fatal accidents inside of mines, | 28 |
| Number of fatal accidents outside, | 4 |
| Number of non-fatal accidents inside of mines, | 51 |
| Number of non-fatal accidents outside, | 15 |
| Number of tons of coal produced per fatal accident inside, | 149,736 |
| Number of persons employed per fatal accident inside, | 270 |
| Number of persons employed per fatal accident outside, | 590 |
| Number of persons employed per non-fatal accident in- | |
| side, | 148 |
| Number of persons employed per non-fatal accident out- | |
| side, | 158 |
| Number of wives made widows, | 20 |
| Number of children orphaned, | . 56 |
| Number of steam locomotives used inside of mines, | 6 |
| Number of steam locomotives used outside, | 18 |
| Number of compressed air locomotives used inside, | 8 |
| Number of electric motors used inside, | 4 |
| Number of fans in use, | 33 |
| Number of gaseous mines in operation, | 5 |
| Number of non-gaseous mines in operation, | 41 |
| Number of new mines opened, | 11 |
| Number of old mines abandoned | 2 |

TABLE A

PRODUCTION OF COAL

| Names of Operators | Tons |
|---------------------------------|------------|
| Delaware and Hudson Company, | 1,913,251 |
| Price-Pancoast Coal Company, | 543,701 |
| Pennsylvania Coal Company, | 448,978 |
| Sterrick Creek Coal Company, | 402,705 |
| Dolph Coal Company, | 247,087 |
| Hillside Coal and Iron Company, | 173,391 |
| Mt. Jessup Coal Company, | 141,901 |
| Moosic Mountain Coal Company, | 112,801 |
| Carney and Brown Coal Company, | 57,842 |
| Black Diamond Coal Company, | 45,157 |
| Edgerton Coal Company, | 43,289 |
| Sunny Side Coal Company, | $30,\!207$ |
| Finn Coal Company, | $24,\!125$ |
| Mowry and Wilson Coal Company, | 5,623 |
| East Mountain Coal Company, | 2,545 |
| Total, | 4,192,603 |
| Production by Counties | |
| Lackawanna, | 4,132,774 |
| Wayne, | 59,829 |
| Total | 4,192,603 |

TABLE B.-Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

| Fatal Accidents Non-Fatal | Names of Operators | Delaware and Hudson Co. 9 20 11 20 20 20 20 20 20 |
|-----------------------------|--|--|
| Non-Fatal Accidents | Total Total produced fatal accident inside | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |
| | the of coal produced first instead accident instance from the first instance of the firs | 15, 663 3, 247 60, 411 1, 070 184, 235 80 184, 235 80 20, 271 224 112, 801 229 116, 652 117 15, 652 117 16, 652 117 18, 652 117 19, 652 117 19, 652 117 19, 652 117 19, 652 117 10, 652 11 |
| | Number of employes out: | 254 1,137 254 1,137 254 1,137 254 1,137 128 255 109 269 25 101 25 101 26 269 27 103 28 201 29 203 20 203 20 203 20 203 20 203 |
| 9bia | min sevolumbra of employes in per fatal accident | 36.1 1.55.1 1.55.2 1.55.3 1.55 |
| | Xumber of employes outs per fatal accident Xumber of employes ins Yumber of employes ins per non-fatal accident | 2.00 11.00 1 |
| - əpis | Number of employes out: per non-fatal accident | 127 127 128 1128 104 104 |

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

| | | | | | | | | | | | | | | |
|--|-------------|----------|--------------------|-----------|------|-------|------|-----------------------|---------------------|----------|-----------------|-----------|----------------------------------|--|
| ('auses of Accidents Inside | January | February | March | April | May | June | July | August | September | October. | November | December. | Totals | Percentages |
| Falls of coal, Falls of roof, Mine cars, Premature blasts, Falling into shafts, Totals, | | | 2 1 -1 -4 | 2 | ···i | 1 | | 2 1 3 == | 1 1 2 | | 1 2 3 | | 1 20 2 3 2 28 | 3.57 71.43 7.14 10.72 7.14 |
| Causes of Accidents Outside Cars, Machinery, Suffocation in chutes, etc., Totals, Grand totals inside and outside, | | | | | | | | ···· | 2 | | 3 | 1 | 1 2 1 4 32 | 25 50 25 100 |

TABLE D.-Classification of Non-fatal Accidents Inside and Outside of Mines

| Causes of Accidents Inside | | February | March | April | May | June | July | August | September | October. | November | December. | Totals | Percentages |
|---|------------|----------|-------------|-----------------------|----------------------|------------------|-----------------|--------|-----------|----------|----------|-----------|------------------------------|--|
| Falls of coal, Falls of roof, Mine cars, Premature blasts, By mules, Miscellaneous, | 2 1 | 1 2 | 1 3 3 | 1 2 1 1 1 | 2 2 3 1 | 1 1 2 1 | 4 1 1 | i | 1 2 | 1 1 | 1 | 1 | 5 15 15 8 3 6 | 9.61 28.85 28.85 15.38 5.77 11.54 |
| Totals, | 4 | 3 | \$ | 6 | 9 | 6 | 6 | === | 3 | | 2 | 2 | 52 === | 100 |
| Causes of Accidents Outside Cars, Machinery, Miscellaneous, | | 1 2 | 1 | | | 1 | 2 | | 1 | 2 1 | 1 | 1 1 | 9 1 4 | 64.29 7.14 28.57 |
| Totals, | | 3 | 1 | _ | | 1 | 2 | _1 | 1 | 3 | 1 | 1 | 14 | 100 |
| Grand totals inside and outside, | 4 | 6 | 9 | 6 | 9 | 7 | 8 | 2 | 4 | 5 | 3 | 3 | 66 | |

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | | |
|---|----------------|----------|-------|------------|-----|------|---------|-------------|-----------|----------|----------|-----------|-----------------|--|
| Inside | January | February | March | April | May | June | July . | August | September | October. | November | December. | Totals | |
| Miners, Miners laborers, Drivers and runners, All other employes, | 1 | 2 | 1 2 1 | 1 1 | | 1 | 1 | 1 1 1 | 2 | 1 1 | 1 2 | 2 1 | 16 10 1 | |
| Totals, | 1 | == | 4 | 2 | 4 | 1 | 1 | 3== | 2 | 2 | 3== | 3== | 28 | |
| Outside Slatepickers (boys), | | | | | | 1 | | | | | | 1 | 3 1 | |
| Totals, | $-\frac{1}{2}$ | 2 | 4 | 2 | 5 | | <u></u> | 3 | 2 | 2 | 3 | 1 4 | $-\frac{4}{32}$ | |

TABLE F.-Occupations of Persons Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|---|-------------|----------|------------------|---------|----------------------|-------------------|----------|-----------|-----------|----------|----------|-----------|--|
| Inside | January | February | March | April | May | June | July | August | September | October. | November | December. | Totals |
| Assistant mine foremen, Miners, Miners laborers, Drivers and runners, Doorboys and helpers, Pumpmen, Company men, All other employes, Totals, | 1 2 1 | 1 1 | 2 3 1 1 | 1 1 1 3 | 5 2 1 1 | 2 2 2 | 4 2 | 1 | 1 1 1 1 3 | 1 1 | 2 | 2 | 1 19 14 13 2 1 1 1 1 52 |
| Outside Blacksmiths and carpenters, Engineers and firemen, Slatepickers (boys), All other employes, Totals, Grand totals inside and outside, | | 1 2 | 1 1 9 | 6 | 9 | .1 -1 7 | 1 1 2 -8 | 1 2 | 1 1 4 | 1 2 3 5 | 1 1 3 | 1 3 | 1 2 4 7 14 66 |

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

| American, 2 1 1 1 Welsh 1 1 1 | | Months | | | | | | | | | 1 | | | |
|--|--|---------|-----|-------|-------|-------|------|------|--------|-----------|----------|----------|-----------|--------|
| Welsh 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 1 <th></th> <th>January</th> <th>5-4</th> <th>March</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>August</th> <th>September</th> <th>October.</th> <th>November</th> <th>December.</th> <th>Totolo</th> | | January | 5-4 | March | April | May | June | July | August | September | October. | November | December. | Totolo |
| tussian, 1 1 | Velsh, rish rollsh, rollsh, talian, lavonian, uithuantan, ustrian, | 1 | 1 | 1 | 1 | 1 1 1 | 1 | 1 | 1 | 1 1 | 1 | 1 | 1 | |

TABLE H.-Nationality of Persons Injured Inside and Outside of Mines

| Inglish 1 2 1 1 1 Velsh Velsh 1 1 1 Velsh 1 1 1 Velsh 1 1 1 Velsh 1 Velsh 1 Velsh 1 Velsh 1 Velsh 1 Velsh | | | | | | | Mo | nths | 3 | | | | | |
|---|--|---------|-------|-------|-----------------|-----------------------------------|------|------|--------|-----------|----------|----------|-----------|--------|
| Velsh, 1 <th></th> <th>January</th> <th>-</th> <th>March</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>August</th> <th>September</th> <th>October.</th> <th>November</th> <th>December.</th> <th>Totale</th> | | January | - | March | April | May | June | July | August | September | October. | November | December. | Totale |
| | Velsh, riish, ierman, olish, lungarian, talian, dayonian, ustrian, | 2 | 1 1 1 | 1 1 2 | 1 1 1 1 1 1 1 1 | 1 1 1 2 4 | 1 | 1 | 1 | 2 | 1 | 3 | | |

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each person

| 25 20 20 20 20 20 20 20 20 20 20 20 20 20 | 236 |
|--|---|
| 90 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 361 |
| 73. 000 73. 00 | .36, 130 = 1111, 400 60, 810 |
| 67,133 9,133 9,133 9,133 1,133 | 272, 940 ==================================== |
| 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | 313,870 108,700 55,985 |
| cc 6257 th 01651- 4 th 01 x 01 th 00 00 01 01 01 | 119 S 4 |
| Steam, Steam, Electric, Electric, Electric, Steam, Steam, Steam, Steam, Steam, Steam, | Steam, |
| <u></u> | |
| a1, | |
| Gaib | Gulbal, Gulbal, Gulbal, Gulbal, |
| ### 61 ## 61 ## 62 ### 62 ### 62 #### 62 #### 62 ##### 62 ######## | 91 9.0. 6 .1. |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 70 90 |
| 4 4 4 2 4 2 4 2 5 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 | 81/2 5 1/4 41/4 41/4 |
| কাডক্রাণড্কা ক দেশ ভূ ডজু ব্যুক্ত বা কা | ರಾಕ ಗುಣ |
| 222 220 200 200 200 200 222 222 222 222 | 35 20 17.5 17.5 |
| Fan. Fan. Fan. Fan. Fan. Fan. Fan. Fan. | Fans,(Fan, |
| NON-98 S. NON-98 | Gaseous, Non-gas. |
| Shope | Shaft, Tunnel & shaft. |
| | |
| laware and Hudson Con, Con River Side, Con Biver Side, Con Dummer Vein, Condulate No. 1. Condulate No. | Pancoast. Pennsylvania Coal Co. No. 2. |
| Delta Clinto Clinto Carbo Ca Carbo Ca Carbo Ca Carbo Ca Carbo Ca Ca Ca Ca Ca Ca Ca Ca Ca Ca Ca Ca Ca | Panco No. 1 No. 2 |
| | Slope, Non-gas. Fan, 17 4 414 110 115 Steam, 3 72,796 67,132 73,000 200 |

*Opening out,

| | | 1 | . 11 | | 11 | | 1 | 1 | | | | |
|--------------|---|----------------|-----------|--|------------------------------------|--|---------------------------------------|---------------|----------------------------|-------------|------------------------|-----------|
| 267 | 322 | 322 | 311 | , · | 693 | 175 | 478 | 231 | 385 | | | 306 |
| 299 | 269 | 238 | 152 | 258 | 124 | 929 | 117 | 92 | 09 | 18 | | 63 |
| 12,440 | 95,30 | 112,750 | 53, 195 | 108,05 0 | 71,735 | 75.3 0 | 61,000 | 27,800 | 29.390 | 4,500 | | 25,260 |
| 80,000 | S7,500 56,655 | 76, 659 | 47, 275 | 93,210 S6,070 | 20,734 | 40,150 | 56, (.0.) | 17,609 | 23,117 | 3,500 | | 19, 300 |
| 90,800 | 90,400 75,135 | | 52,825 | 10 0 | 60, 729 | 72,800 | 61, 500 | | 30,300 | | | 22, 400 |
| اد | 10.00 | 1 4 | 4 | 9:: | l re | 61 | ଦୀ | 61 | | | | |
| Steam, | Steam, | Steam, | Steam, | Steam & clectric, | Steam, | Steam, | Steam, | Steam, | | 1 :1 | | Steam, |
| : | | : | : | | : | : | - : | : | • | | | |
| Guibal, . | Guibal, Guibal, | Guibal, . | Guibal, . | Guibal, | Guibal, | Guibal, . | Guibal, . | Guibal, . | | | | Guibal, . |
| <u>.</u> : | 0.8.8. | 1.6 | 1.0 | 1.0 | 61 4 | 60 | 63 | Ħ | -: | Ī | | 1.1 |
| 02 | 02 08 08 | 09 | 09 | 75 | . 58 | 100 | 99 | 92 | : | | | 02 |
| 41/4 | 27.6 27.8 27.8 | 9 | • | 41/4 | 474 475 | 41/4 | 4 | 21/2 | | | : | 31/3 |
| ro | . 5 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | . 9 | ro | 41/4 | 94 | 7* | *रा | 31/8 | | | | 32/3 |
| 17.5 | 25 16 16 | 20 | 87 | 12 | 16 | 12 | 13 | 10 | | | | 12 |
| Fan, | Fans, | Fan, | Fan, | Fans, | Fans, | Fan, | Fan, | Fan, | Natural, | Natural, | Natural, | Fan, |
| Non-gas. | Gaseous, Non-gas. | Non-gas. | Non-gas. | Non-gas. Non-gas. | Gaseous, | Non-gas. | Non-gas. | Non-gas. | Non-gas. | Non-gas. | Non-gas. | Non-gas. |
| Shaft, | Shaft, | Slope & | Slope, | Shaft, | Slope, | Drift, | z drifts | Drift, | Shaft, | 2 drifts, . | 2 drifts, . | Slope, |
| Gipsy Grove, | :: | Dolph Coal Co. | Hannabel, | Hillside Coal and Iron Co. Erie, Keystone, | Mt. Jessup Coal Co. Mt. Jessup, | Moosic Mountain Coal Co. Moosic Mountain, | Black Diamond Coal Co. Black Diamond, | Finn Coal Co. | Carney and Brown, coal Co. | Mowry, † | East Mountain Coal Co. | Edgerton, |

tRobbing pillars.

TABLE 1.-Operators, location of collieries, railroads, etc.

| Railroad to Mine | Delaware and Hudson | Ontario and Western Ontario and Western | Erle Erie | Delaware and Hudson | Delaware and Hudson | and Erie Brie Erie | D., L. and W., Erle and | Ontario and Western | D., L. and W., Frie and Ontarlo and Western | O. and W. and Erie |
|------------------------------------|---|--|--|---|---------------------|--|-------------------------|---|--|-------------------------|
| Post Office | | Throop, | Dunmore. | Olyphant, | , | Mayfield, | | | Dunmore, | Carbondale, |
| Name of Superin- tendent | | Joseph Birtley, | John Reid, John Reid, | Joseph Reese, | | John F. Gallagher, John F. Gallagher, | Winton, | Winton, | Thomas Mullen, | G. J. Thomas, |
| Post Office | Scranton, | Scranton, | Scranton, Scranton, | Jermyn, | Scranton, | Dunmore, | Winton, | Winton, | | W. Pittaton, G. |
| Names of General Superintendent | C. C. Rose, | John R. Bryden, John R. Bryden, | W. W. Inglis, | F. Hemelright, | W. G. Robertson, | V. L. Petersen, | Charles P. Ford, | Charles P. Ford, | John Carney, | W. G. Thomas, |
| County | Lackawanna and Wayne Lackawanna, | Lackawanna, Lackawanna, | Lackawanna, Lackawanna, | Lackawanna, | Lackawanna, | Lackawanna, Lackawanna, | Lackawanna, | Lackawanne, | Lackawanna, | Lackawanna, |
| Names of Operators and Col- | Delaware and Hudson Co. Clinton. No. 1 Carbondale, Powderly, Powderly, White Oak, No. 2 Olyphant, Eddy 'Teek, Racket Brook washery, Grassy Island washery, | Pancoast Washery, | Pennsylvania Goal Co. No. 1 Pennsylvania, Glpsy Grove, | Sterrick Creek Coal Co. Sterrick Creek, | Dolph Coal Co. | Hillside Coal and Iron Co. Eric. Keystone. | Mt. Jessup Coal Co. | Moosic Mountain Coal Co. Moosic Mountain, | Carney and Brown Coal Co. | Black Diamond, Coal Co. |

| Edgerton Coal Co. Sunny Side vashery. Sunny Side washery. Finn Coal Co. Lackawanna, M. Dolphin, Scranton, Mowry and Wilson Coal Co. Mowry and Wilson Coal Co. Lackawanna, Albert Mowry. Dunmore, East Mountain, Local sale Local sale Local sale Local sale | | | | | |
|---|--------------------|--|---------------------|---------------------------|------------------------|
| Edgerton Coal Co. Edgerton Coal Co. Sunny Side Coal Co. Sunny Side Coal Co. Sunny Side washery. Finn Coal Co. Rowry and Wilson Coal Co. Mowry and Wilson Coal Co. Lackawanna, Albert Mowry. Dunmore, Bast Mountain. Edgerton Coal Co. Lackawanna, Albert Mowry. John E. Watkins. Carbondale, | D. and H. and Erie | Erie | Ontario and Western | Local sale | Local sale |
| Edgerton Coal Co. Lackawanna, F. Hemelright, Jermyn, Sunny Side Coal Co. Sunny Side washery, Finn Coal Co. Finn Mowry and Wilson Coal Co. Eackawanna, Wade M. Finn, Scranton, Mowry and Wilson Coal Co. East Mountain Coal Co. Lackawanna, John E. Watkins, Carbondale, | | | | | |
| Edgerton Coal Co. Sunny Side Coal Co. Sunny Side Coal Co. Sunny Side Washery, Finn Coal Co. Finn Coal Co. Lackawanna, M. Dolphin, Finn Coal Co. Lackawanna, Wade M. Finn, Mowry and Wilson Coal Co. East Mountain, Lackawanna, John E. Watkins, Carbondale, | | | | | |
| Edgerton Coal Co. Lackawanna, F. Hemelright, Sunny Side Coal Co. Lackawanna, F. Hemelright, Sunny Side washery, Lackawanna, M. Dolphin, Finn Coal Co. Lackawanna, Wade M. Finn, Mowry and Wilson Coal Co. Lackawanna, Albert Mowry. Albert Mowry. East Mountain Coal Co. Lackawanna, John E. Watkins, | Jermyn, | Scranton, | Scranton, | Dunmore, | Carbondale, |
| Edgerton Coal Co. Sunny Side Coal Co. Sunny Side Washery, Finn Coal Co. Finn Coal Co. Lackawanna, Mowry and Wilson Coal Co. East Mountain Coal Co. Lackawanna, Lackawanna, Lackawanna, Lackawanna, | F. Hemelright, | M. Dolphin, | Wade M. Finn, | Albert Mowry, | John E. Watkins, |
| Edgerton Coal Co. Sunny Side Coal Co. Sunny Side Washery, Finn Coal Co. Finn Coal Co. Mowry and Wilson Coal Co. East Mountain, | Lackawanna, | Lackawanna, | Lackawanna, | Lackawanna, | Lackawanna, |
| | | Sunny Side Coal Co. Sunny Side washery, | Finn Coal Co. | Mowry and Wilson Coal Co. | East Mountain Coal Co. |

*Abandoned

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder and dynamite used, etc.

| Number of horses and mul | 69 459 1122 118 | 356 | . 63 | 23 | 80.00 | 124 | 124 |
|---|---|----------------|---|--------|-----------|---|---------|
| Number of pounds of dynamite | 48, 200 2, 333 5, 610 40, 203 8, 976 | 105,747 | | | 105,747 | 22,675 | 22,675 |
| Number of kegs of powder used | 14, 949 4, 393 3, 697 8, 587 5, 965 25, 045 | 62, 636 | | | 62,636 | 26,6.3 | 26,653 |
| Number of non-fatal accidents | es t-Hisest- | 26 | | | 56 | 12 | 12 |
| Number of fatal accidents | o: = 01 = 4 | = | | | 11 | 9 | 9 |
| Number of employes | 710 406 531 682 563 1,220 | 4,115 | 0100 | 62 | 4,177 | 1,250 | 1,301 |
| Number of days worked, (Totals washeries) | 242 271 273 273 274 274 | 251 | 157 | | 351 | 239 108 | 239 |
| Total production of coal in tons | 339, 297 30, 889 382, 515 353, 649 174, 154 528, 020 | 1, <13, €21 | 51, S71 47, 756 | 99,627 | 1,913,251 | 494,515 | 543,701 |
| Number of tons sold to local trade and used by employes | 2, 427 3, 766 2, 156 858 | 9.207 | | | 702.6 | 2,739 | 2,739 |
| Number of tons used at collierles for steam and heat | 20,345 13,011 25,884 20,965 6,795 21,926 | 108,926 | 5,000 | 12,300 | 121, 226 | 36, 500 | 36,500 |
| Number of tens of coal shipped to | 316, 625 17, 878 356, 631 72%, 918 170, 203 505, 236 | 1,695,491 | 46,871 | 87,327 | 1,782,818 | 455,276 | 504,462 |
| County | Lackawanna and Wayne Lackawanna, | | Lackawanna, Lackawanna, | | | Lackawanna, Lackawanna, | |
| Names of Operators and Collieries | Clinton, Delaware and Hudson Co. Clinton, No. 1 Carbondale, Powderly, Jermyn, White Oak, Eddy, Creak, | o. z Olyphant. | Racket Brook washery, Grassy Island washery, | | Tetals, | Panemast, Price-Pancoast Coal Co. Panemast, Washerv, | Totals, |

*Coal prepared at Eddy Creek.

| REPORT OF THE | DIM MICHMENT |
|---|--|
| Number of horses and mules | 101 102 103 105 105 105 105 105 105 105 105 105 105 |
| or spin of pound of dynamite beau besu | 105, 747 22, 675 10, 1675 18, 776 8, 250 6, (43 33, 107 244, 757 |
| Number of kegs of powder used | 62, 636 26, 653 21, 782 15, 570 9, 570 9, 570 16, 685 159, 685 |
| Number of non-fatal accidents | 32 12 26 14 14 14 14 14 14 14 14 14 14 14 14 14 |
| Number of fatal accidents | 111 22 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |
| Number of employes | 4,177 1,301 1,197 883 629 629 1,161 1,161 9,915 |
| Number of days worked. (Totals are averages, not including washeries) | 251 239 198 189 189 166 195 200 |
| rotal production of coal in tons | 1, 913, 251 543, 701 448, 978 402, 705 247, 687 173, 391 463, 490 4, 192, 603 |
| Number of tons sold to local trade and used by employes | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |
| Number of tons used at collieries for steam and heat | 121, 226 36, 560 4, (62 22, 730 25, 000 14, 426 57, 128 |
| Number of tons of coal shipped to the coal shipped | 1,782,818 504,462 442,633 377,391 221,042 156,773 381,336 |
| County | Lackawanna and Wayne Lackawanna, |
| Names of Operators | letaware and Hudson Co., Frice-Paneoast (cal Co., Speries Coal Co., Storick Creek Coal Co., Bouph Coal Co., Hilbside Coal and True Co., Miscellaneous companies. Tetals. |

TABLE 2.-Continued

| - | Number of air compressors | 04 04000101 H |
|-------------------|---|---|
| | Number of electric dynamos | 10 |
| per | Quantity delivered to surface minute-gallons | 15, 163 1, 764 2, 110 3, 450 1, (0) 1, (0) 1, (0) 25, 304 |
| əin | Capacity in gallons per min | 41,720 4,267 4,267 1,2764 4,330 1,500 1,500 1,500 1,500 |
| Buir | Number to pumps delive | ပါ (၁၈ ရက္ထာက္ ၁၈ ရက္ ရက္ |
| | Total horse power | 10, 397 1, 788 1, 260 1, 260 1, 260 1, 500 1, 500 1 |
| lls : | Number of steam engines of | 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0 |
| ses | Electric | G# 1 |
| Locomotives | TiA | υο 4 0 |
| Loco | Біеат | 00 0000 01-1 - 3 |
| | Total horse power | 4, 296 11,585 11,480 11,480 11,485 11,485 11,680 11 |
| oilers | Horse power | 2,1(0 1,400 1,310 1,310 1,335 1,050 1,050 1,050 1,050 1,050 1,000 |
| Number of Boilers | Tubular | 12 60 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| Numb | Horse power | 2,196 480 80 80 520 75 75 110 30 80 |
| | (*Vlindrical | 6. 14.6. 25 14. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. |
| | County | Lackawanna & Wayne Nayne Lackawanna, . |
| | Names of Operators | Delaware and Hudson Co., Price-Pancoast Coal Co. Sterrick Cruek Coal Co. Dolph (val Co. Mt. Jessup Coal Co. Mt. Jessup Coal Co. Ganta Gant and Iron Co. Mt. Jessup Coal Co. Carrey and Brwwn Coal Co. Carrey and Brwwn Coal Co. Black Diamon Coal Co. Sunny Side Coal Co. Sunny Side Coal Co. Mowry and Wilson Coal Co. Mowry and Wilson Coal Co. East Mountain Coal Co. |

TABLE 3.-Number of each class of employes inside and outside of mines

| | obistuo bas obisai Istot basri) | 710 | 881 188 168 1- | 1,159 | 4,115 | 67.00 | 62 | 4,177 | 1,250 | 1,301 |
|---------|--------------------------------------|-------------------------|--|-------------|-------|---|---------|-------|--|---------|
| | ofistuo IstoT | 144 | 28 28 28 28 28 28 28 28 28 28 28 28 28 2 | 239 | 898 | 61 55 10 75 | 62 | 930 | 180 | 231 |
| 1 | seyoldine redto IIA | 54 | 5855 | 115 | 394 | 4.62 | 36 | 430 | 8.8 | 106 |
| | Вооккесретя яла стеткя | F | | - ຄວ | 6 | - | - | 10 | 4 | . + |
| de | Slate pickers (men) | 13 | 25 25 3 | 20 | 163 | t-is | 12 | 173 | 45.0 | 88 |
| Outside | Slate pickers (boys) | 43 | 3908 | 43 | 179 | 1.0 | 15 | 181 | \$: | 48 |
| | Engineers and firemen | 14 | E2221 | 4 | 5.0 | c1 c. | 7 | 5.7. | F= 01 | 19 |
| | Blacksmiths and carpenters | 9 | ক ক (ও ক | 150 | 38 | | £1 | = | 000 | 21 |
| | Foremen | | | - | 9 | | 71 | | | 21 |
| | Superintendents | : | | | - | | : | , mrt | - : | |
| | əbizni IstoT | 999 | 324 366 589 439 | 960 | 3,247 | | | 3,247 | 1,070 | 1,070 |
| | All other employes | 65 | 31 | 22 | 168 | | | 168 | 16 | 94 |
| | Сошрану теп | 97 | 18 38 16 16 | 67 | 1 | | | 149 | 41 | = |
| | Рипурпун | 9 | 0100101717 | 1 44 | 60 | | ! | 8 | 9 | 9 |
| Inside | Door boys and helpers | 30 | ₹ (~ % (- | Z. | s4 | | : | 8 | 55 | 69 |
| E | Drivers and runners | 88 88 | 41 50 71 73 | 97 | 494 | | | 421 | 166 | 991 |
| | Miners' laborers | 191 | 139 159 120 185 | 305 | 1,299 | | : | 1,299 | 353 | 35.3 |
| | stoniM | 190 | 107 119 130 130 130 | 200 | 1,077 | | 1 | 1,077 | 341 | 341 |
| | Fire bosses and assistants | | : : : : | -41 | 4 | | | 7 | 9 : | 9 |
| | Assistant mine toremen | 60 | 01-0101 | . ~ | 14 | ! !!! | 1 | 14 | en : | 01 |
| | Mine foremen | | | - 01 | 1 | ::: | 1 : | 1 | 21 | 1 23 |
| | County | Lackawanna & | wayne Lackawanna, | | | Lackawanna, | | | Lackawanna, | |
| | Names of Operators and Collieries | Delaware and Hudson Co. | No. 1 Carbondale, Powelerly, Jermyn, White Oalk, | Eddy Creek, | | Racket Brook washery, Grassy Island washery, | T tals. | | Price-Panceast Coal Co. Panceast Panceast washery. | Totals, |

| 878 319 | 1,197 | 883 | 639 | 459 98 | 557 | 328 | 269 | 94 | 169 | 26 | 54 | 101 | 61 | 36 | 9,915 |
|---|---------|---|----------------|--|---------|---------------------|--|---------------------------|--|-------------------|---|----------------|-----------------------------------|--|---------------|
| 168 86 | 254 | 214 | 249 | 107 21 | 128 | 104 | 40 | 34 | 22 | 34 | 24 | 25 | ıo | 1- | 2,361 |
| 25 | 125 | 107 | 22 | 99 1- | C2 | 25 | - 82 | 15 | 83 | 15 | 33 | 67 | - | | 1,065 |
| 01 ↔ | 00 | 6.1 | 9 | 63 | 67 | m | - | - | ÷ | - | - | - | | | 6.5 N. |
| 21 6 | 27 | 16 | %. | 614 | 16 | | | | 12 | 0 | | 60 | | | 278 |
| 335 | 12 | 57 | 100 | či ro | 17 | 45 | | 12 | = | 4 | 10 | 12 | 61 | 60 | 507 |
| 13.00 | 17 | 22 | 23 | on e1 | 11 | 10 | re | 61 | 2 | 61 | 9 | 60 | | | 914 |
| 1-01 | 6 | 14 | 133 | 701 | 9 | 6 | ro | ! | 61 | ¢2 | 10 | Ĉ1 | | - | 63 |
| | - | 1 1 | 1 1 | | e1 | i i | 1 1 | 1 1 | | 1 | - 00 | - | | | 63 |
| <u> </u> | : | | | - | - | | 1 1 | 1 1 | | : | 1 1 | | | 1 | 13 |
| 710 | 943 | 699 | 390 | 352 | 429 | 224 | 929 | 09 | 1117 | 63 | | 9.2 | 138 | 13 | 7,554 |
| 35 | 09 | 14 | | 9 00 | 19 | 10 | 1 | | | 60 | | G) | | | 379 |
| 65 4 | 1- | 3.2 | 14 | \$3 e1 | 25 | 56 | 13 | 17 | 61 | 70 | | - | 7 | 6) | 454 |
| Ç1 | 63 | ಣ | 07 | C1 | ¢.) | os l | Ç1 | | | | | | | | 46 |
| - 60 V | 17 | 98 | 00. | 00 | 60 | re | 13 | | 6.5 | C1 | | 61 | • | | 226 |
| 1.8 | 118 | 68 | 71 | 45 | 54 | 31 | 40 | | 16 | 4 | | 10 | 00 | c1 | 1,028 |
| 266 | 315 | 213 | 108 | 130 | 160 | 47 | 6.5 | 01 01 | 5.4 | 1.7 | | 30 | 16 | × | 2,714 |
| 229 118 | 347 | 1997 | 177 | 133 34 | 163 | 66 | 6. | 30 | 40 | 5 | | 8 | 10 | 9 | 2,642 |
| - : | - | 1 1 | | | | | | | | | 1 :1 | | : | : | 55 |
| | 00 | - : | | | | | 1 1 | | | ! !! | | | | | 6, |
| | 0 | 4 | c1 | | c) | 7 | | | c1 | | | - | - | - | 0,5 |
| Lackawanna, Lackawanna, | | Lackawanna, | Lackawanna, | Lackawanna, Lackawanna, | | Lackawanna, | Lackawanna, | Lackawanna, | Lackawanna, | Lackawanna, | Lackawanna, | Lackawanna, | Lackawanna, | Lackawanna, | |
| Pennsylvania Coal Co. No. 1 Pennsylvania | Totals, | Sterrick Creek Coal Co. Sterrick Creek, | Dolph Coal Co. | Hillside Coal and Iron Co. Erle. Keystone, | Totals, | Mt. Jessup Coal Co. | Moosic Mountain Coal Co. Moosic Mountain, | Carney and Brown Coal Co. | Black Diamond Coal Co. Black Diamond, | Edgerton Coal Co. | Sunny Side Coal (*o. Sunny Side washery, | Finn, Coal Co. | Mowry and Wilson Coal Co., Mowry, | Fast Mountain Coal Co. East Mountain, | Grand totals, |

TABLE 3.—Recapitulation

| | Grand total inside and outside | 1,301 1,301 1,197 1,197 1,197 1,161 1,161 9,915 |
|---------|--------------------------------|---|
| | Total outside | 930 231 254 249 249 355 355 3561 |
| | All other employes | 430 106 125 107 82 73 142 1, 065 |
| | Bookkeepers and clerks | 0. 48936911 88 |
| به | Slate pickers (men) | 175 378 378 378 |
| Outside | Slate pickers (boys) | 184 48 772 35 177 177 177 177 |
| | Engineers and firemen | 82 11 11 11 11 11 11 11 11 |
| | Blacksmiths and carpenters | 04 04 05 05 05 05 05 05 05 05 05 05 05 05 05 |
| | Ротетеп | × 01 |
| | Superintendents | L L |
| | obiani IstoT | 3,247 1,070 943 669 390 429 806 7,554 |
| | All other employees | 94 60 60 114 119 171 379 |
| | Сотрану теп | 149 141 141 145 141 145 145 145 145 145 145 |
| | Pumpmen | 6 10 22 23 23 25 4 |
| Inside | Door boys and helpers | 25 25 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 |
| Ins | Stanny bas stayiq(I | 1118 89 81 71 71 106 |
| | Miners' laborers | 1,299 353 315 213 108 160 2,714 |
| | srəniM | 2, 642 |
| | Fire bosses and assistants | 4 044 : 4 5 |
| | Assistant mine foremen | 4 010 101 01 |
| | Mine foremen | S :150 4 61610 € |
| | County | Lackawanna & Wayne Lackawanna |
| | Names of Operators | Delaware and Hudson Co |

TABLE 3.-Continued

| | | 243 | -16 × 4 | 6 | 6 9 | 6 | ø. | 44 GO | 01 | 10 | | _ |
|-----------------------------------|-----------------------------------|--------------------------|---|-------------------------|---|-------------------------|------------------------|---|-------------|--------------------------|---------------------------|----------------|
| | [stoT | 22 | 248 248 248 248 | 239 | 189 | 189 | 189 | 174 | 222 | 196 | 223 | 251 |
| | December | 92 | 22 18 18 22 23 | 22 | 18 | 16 | 8 | 18 16 | 17 | 10 | 21 | 22 |
| | Мочетрег | 20 | 22 21 17 16 18 | 21 | 17 | 13 | 20 | 14 | 19 | 16 | 20 | 20 |
| | Осторет | 22 | 24 21 19 18 20 | 25 | | 14 | 20 | 111 | 18 | 15 | 18 | 54 |
| reaker. | September | 20 | 22 27 1 1 2 2 2 1 1 1 1 2 1 1 1 1 1 1 1 | - 33 | 18 | 17 | | 14 | 18 | 16 | 18 | 19 |
| ed in B | tsuguA | | ลสล สล | 20 | 16 | 15 | | 15 | 17 | 14 | 17 | 00 |
| Number of Days Worked in Breaker. | Vint | 601 | 88888 88888 | . 53 | ची से स्था | 12 | 19 | 14 | 1.7 | 14 | 15 | 17 |
| of Day | əunr | 24 | 422222 | 61 | 27 25 | 20 | 19 | 22 | 21 | 18 | 19 | 24 |
| lumber | VaM | ž3 | 21222212 | 21 | 123 | 0.1 | 20 | 20 | 17 | 18 | | |
| 4 | litqA | 22 | 82828 | 18 | 14 20 | 19 | 35 | 1 s | 15 | 14 | 20 | |
| | Матећ | 26 | 25 22 25 24 24 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25 | 23 | 16 16 | 18 | 20 | 13 | 83 | 22 | 17 | દુક |
| | February. | 19 | 21 20 20 20 16 | 12 | == | 11 | 16 | 1-1- | 20 | 16 | 19 | 81 |
| | Januaty | 21 | 23 23 21 18 17 | ಣ | 133 | 14 | 17 | 122 | 8 | 18 | 19 | 451 |
| | County | Lackawanna & | Lackawanna,. | La kawanna, | Lackawanna, Lackawanna, | Lackawanna, | Lackawanna, | Lackawanna, Lackawanna, | Lackawanna | Lackawanna, | Lackawanna, | Laekawanna, |
| | Names of Operators and Collieries | In-laware and Hudson Co. | No. 1 Carbondale, Powderly, Jermyn, White Oak, Eddy, Creek, | Price-Pancoast Coal Co. | No. 1 Pennsylvania Coal Co. Gipsy Grove. | Sterrick Creek Coal Co. | Dolph, Toolph Coal Co. | Hillside Coal and Iron Co. Reystone. | Mt. Jessup, | Moosic Mountain Coal Co. | Carney and Brown Coal Co. | Black Diamond, |

TABLE 3.-Continued

| | Trotal | 160 | 152 | 195 | 160 |
|----------------------------------|-----------------------------------|-----------------------------|---------------------|----------------------------------|-------------------------|
| | | | | | |
| | T96(m999Cl | 16 | rc | 22 | 255 |
| | November | 60 | 133 | 83 | 22 |
| | TedotoO | = | 11 | 24 | 20 |
| er | September | 00 | 14 | 16 | 18.1 |
| 1 Break | isusuA | 14 | 65 | 15 | 16 |
| Number of Days Worked in Breaker | July | 11 | 61 | [| 15. |
| Days W | lune | 17 | 10 . | 00 | 17 |
| er of I | May | 17. | 10 | • | 15 |
| Numh | lindA | 16 | 130 | 14 | 12 |
| | Матећ | 16 | 15 | 18 | : |
| | Rebruary | ø | 12 | 61 | |
| | Jannary | 12 | # | ĉî | |
| | County | Гаска wanna | Lackawanna, | Lackawanna, | Lackawanna, |
| | Names of Operators and Collicries | Edgerten, Bagerten Coal Co. | Finn, Pinn Coal Co. | Mowry, Mowry and Wilson Coal Co. | East Mountain, Coal Co. |

TABLE 4.-Fatal accidents inside and outside of mines

| | | - | | | | - | | | | × | | | | |
|---------------------------------------|---|--|---|---|---|---|--|--|---|---|---|--|--|---|
| Nature and Cause of Accident in Brief | Fatally injured in an unknown manner by an automatic lever in breaker. Out- | Killed by a fall of roof while he was barring down coal near face of cham- | Fatally injured by a fall of roof which | Fatally injured by being struck with a loaded car that was being run from | Killed by falling from a landing in shaft | Killed by fall of roof near face of cham- | Will Killed by a trip of loaded cars which | Killed instantly by a fall of roof near heading road while shoveling coal to | Car. Killed by fall of roof while opening a | Killed by fall of roof near face of cham- | Fatally injured by a fall of fire-clay rotof on heading road while assisting to | hang a door. Killed by a fall of roof near face of cham- | Fatally injured by a locomotive on which he was riding the lumpers, and fell | under. Outside. Fatally injured by a fall of roof at face of chamber. |
| County | | | | | | | | Lackawanna, | | | | | | |
| Name of Mine | Jessup, | Clinton, | Keystone, | foosic Moun- | Sterrick Creek,. | Black Diamond, | Dolph, | Gipsy Grove, | Moosic Moun- | No. 2 Olyphant, | Grassy Island,. | Sterrick Creek, | White Oak, | Dolph, |
| N a | Mt. | Clin | Key | Moosic tain. | Ster | Blac | Dolr | Gips | Moo | No. | Gra | | Whi | Dol |
| Number of orphans | : | 61 | ro | 4 | c3 | : | : | 10 | 4 | 4 | 2 | : | | 60 |
| swobiw to redmuN | | Ξ. | - | - | | : | i | | - | Η. | | | | |
| elgnis to beittasM | | M | M. | M. | M. | υż | vi. | M. | Ä. | M. | Ä | vi - vi | vi | - M |
| Age | 15 | . 42 | . 41 | . 43 | - 50 | . 22 | . 27 | . 40 | . 40 | . 40 | . 60 | . 23 | , 14 | - 40 |
| noitegusso | Slate-picker, | Miner, | Miner, | Miner, | Mason's- | Miner, | Laborer, | Laborer, | Miner, | Laborer, | Laborer, | Miner, | Slate-picker, | Miner, |
| Nationality | Italian, | Austrian, | Welsh, | Italian, | Italian, | Welsh, | Polish, | Polish, | Slavonian, . | Polish, | Irish, | Italian, | American, | Polish, Miner, |
| Name of Person | John Spedina, | Frank Opaka, | William Jones, | John Fontana, | James George, | David Lewis, | John Plisko, | Peter Karoulchik, | Simon Evanshock, | Michael Zdybik, | John Daley, | Nazarane Delfoni, | Frank Gillespie, | 20 Martin Roman, |
| | 70 | 27 | Vett | 13 | | 90 | 24 | 67 | 10 | 20 | LQ. | 00 | 18 | 61 |
| fate of accident | Jan. | | Feb. | | March 2 | | | | April | | May | | | |

TABLE 4.-Continued

| Nature and Cause of Arcident in Brief | Fatally injured while tamping a hole charged with dynamite and percussion cap. The charge ignited and threw a large | killed by being smothered by a bank of earth falling upon him, while timber-ing for a water way Outside | Kills for a water way. Carried he was firing instantly by a blast which he was | Killed. Killed by a fall of roof near face of | Killed instantly by falling into shaft. Fatally injured by a fall of "separa-from" may near food of morein. | Fatally form theat face of working face of chamber while barring out a | shot. Killed instantly by a blast while assist- ing another miner to fre it. The squib | was shortened. Killed instantly by a fall of roof near | Killed instantly by a fall of roof near face of chamber, while removing rock | which he had blasted down. Fatally injured by a fall of fire-clay roof while shoveling coal near face of cham- | ber. Fatally injured by a fall of roof while loading a car twenty feet back from | face of chamber. Fatally injured by a fall of fourteen inch bench of coal, while gathering tamping near face of chamber. |
|---------------------------------------|---|---|--|---|---|--|--|--|--|---|--|--|
| County | | | | | | | Lackawanna, | | | | | |
| Mine | | -uoq | i | ant, | ant, | | ~_ | <u>:</u> | : | | | |
| of 1 | | Car | st, | lyph | st, | | | st, | st, | | | : |
| Name of Mine | Clinton, | No. 1 Carbon- dale. | Pancoast, | No. 2 Olyphant, | Pancoast, | Pancoast, | Pancoast, | Pancoast, | Pancoast, | Chinton, | Jermyn, | Jermyn, |
| Number of orphans | - | 4 | : | 63 | :: | 41 | H | : | Т | 2c | : | |
| awobiw to 19dmuN | - | - | : | — | | Н | H | : | | - | Н | : |
| Married or single | Ä. | M | υż | M. | _:: | × | Ä | 802 | Ä | Ĭ. | M. | υż |
| Age | 36 | 32 | 34 | 30 | 18 21 | 34 | 55 | 30 | 34 | 39 | 35 | 22 |
| noitequosO | Miner | Compan; miner. | Miner, | Laborer | Driver, | Miner, | Miner, | Miner, | Miner, | Laborer, | Laborer, | Laborer, |
| Vationality | American, | Irish, | Italian, | Polish, | American, | Slavonian, . | Russian, | Austrian, | Lithuanian,. | Austrian, | Irish, | Polisk, Laborer, |
| Person | | inley, | | ofski, | sky, | la, | Iritus, | nan, | р, | emic, | sher, | das, |
| Name of Person | John Cresco, | Patrick McGinley, | John Ronko, | Moicek Mechofski, | John Pendel, Joseph Monosky, | George Kapola, | Anthony Gedritus, | Charles Nieman, | John Govitch, | Anthony Themic, | John Gallagher, | Thomas Goglas, |
| | 15 | 288 | 21 | 18 | 123 | 30 | 00 | 6 | 4 | 31 | t= | Ħ |
| frabloog to obset | May | June | | July | Aug. | | Sept. | | Oct. | | Nov. | |

| | | | _ | | |
|--|--|--|--|---|-------------|
| Killed by fall of roof near face of pillar which he was working. | Fatally injured by being caught in the scraper line in breaker. Outside. | Killed by a fall of rock near pillar where | Killed near face of heading by a fall of | Killed near face of heading by a fall of roof, while putting a new piece of | Clack down. |
| | | а, - | _ | | _ |
| | | Polish, Laborer, 23 S Black Diamond, Eackawanna, | | | |
| | | ıckar | | | |
| _ | | La | | | |
| [| : | ond, | Moun- | -unoM | _ |
| : | sup, |)iam | Ĭ | | |
| nn, | Jes. | lck I | oosic | oosic tain. | |
| Fir | Mt | Bla | Mo | Mo | |
| 27 | : | | 10 | : | |
| - | - | - : | | - - | |
| M | : | v2 | × | × | |
| - 27 | 14 | | . 39 | | |
| | cker | : | | | |
| ner, | tepi | bore | ner, | ner, | |
| Min | SIS | La | Mil | Min | |
| : | American, Slatepicker, 14 Mt. Jessup, | : | lavonian, . Miner,, 39 M. 1 5 Moosic | Polish, Miner, 45 M. 1 Moosic tain. | |
| 1, | erica | sh, . | onia | sh, | |
| Iris | Am | Poli | Slav | Poli | |
| : | : | : | : | : | |
| : | : | : | | | |
| ry, | ard, | back, | ra, | | |
| Hen | W.8 | Przyk | Zaluı | ohle | |
| orge | chae | nk I | qoo | K | |
| Nev. 21 George Henry, Irish, Miner, 27 M. 1 2 Finn, | Dec. 5 Michael Ward, | 13 Frank Przyback, | 15 Jacob Zalura, | 15 Max Kohler, | |
| 21 | ro | 13 | 15 | 15 | |
| | | | | | |

TABLE 5.-Non-fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Fractured ankle. While loading a car | Leg and hatek injured by a piece of rock which fell on him near face of cham- | ber. Lege fractured by being struck with a rope which he neglected putting on a | Fractured arm. Was struck with flying coals from a blast which he thought | Elight it. Back and shoulder injured by a fall of roof while wetting a place ready to | 0,000 | across a chute in preaker. Ourside. | cage and car, while assisting to place the car on cage. Legs injured by being caught between a | Coar of props and the pillar. Foot bruised by the locamotive, while inneupling it from a mine car. Out- | Compound fracture of instep by being | reactiving shaft in breaker. Outside. Leg fractured by culm car tipping on | him. Outside. Body injured by a piece of roof falling | on him, while barring out a shot. Three ribs fractured by a fall of roof, while barring out a shot at face of chamber. |
|---------------------------------------|--------------------------------------|---|---|---|--|--------------|-------------------------------------|--|---|--------------------------------------|--|--|---|
| County | | | | | | | Lackawanna, | | | | | | |
| Name of Mine | No. 2 Olyphant, | Black Diamond, | Eddy ('reek, | Pancoast, | White Oak, | Pancoast, | Pancoast, | Mt. Jessup, | White Oak, | White Oak, | Clinton, | Black Diamond, | Sterrick ('reek, |
| Married or single. | M. | υż | υż | υż | M. | -: | M. | : | : | : | M. | υż | M. |
| 786 | 48 | 50 | 17 | 26 | 60 | 17 | 38 | 18 | 15 | 15 | 800 | 30 | 40 |
| noibaqussO | Laborer, | Laborer, | Driver, | Miner, | Laborer, | slatepicker, | Footman, | Driver, | Locomo tive fireman. | Slatepicker, . | Culm-dumper, | Miner, | Miner, |
| yhlenoiheN | Polish, | Polish, | American, | English, | Polish, | Italian, | American, | Slavonian, | .\merican, | American, | Italian, | Welsh, | Polish, |
| Name of Person | Anthony Lojus, | Michael Rumnoswik, | Patrick Hammond, | William Williams, | Anthony Jamacusky, | James Mutta, | William Armson, | John Marsanik, | John Coates, | Stanley Moran, | Pasko Farro, | Robert Taylor, | Jacob Sherosky, |
| Inables to state | 9 | 10 - | 19 | 31 | 9 | 30 | 51 | 60 | 11 | n 1 | 9 | OD. | SO |
| | Jan. | | | | Feb. | | | | | March | | | |

| Leg fractured by a trip of loaded cars | Head and foot injured by a fall of roof | in face of chamber. Leg fractured by a piece of top coal fall- | Tolled against him. Compound fracture of arm by falling off an emnity car while taking it into the | heading. He was sitting on the bumper and slipped. Iland crushed by a locomotive while | coupling to a trip of cars. Scalded about the face and hands by steam and hot water which escaped from a small blow-off nine that was | broken. Leg fractured by a fall of roof in face of population of the process of | Stomach injured by being kicked by a | Leg tractured by an empty car which he was following up a chamber. The | mule stopped and left it back, catching him. Leg injured severely between empty cars | while bumping them. Foot injured by running against a miner's | needle. Sealp and face injured by flying coals | from a premature blast. Knee injured by a mule falling on him. Leg fractured by falling while walking. | up a slope. Leg fractured by a piece of coal falling | on him while barring it down. Foot fractured by a fall of roof while | Face and head seriously injured while returning to examine the result of a | fuse and dynamite. One exploded, and | Leg fractured by a piece of coal which | fell and rolled against him. Body, and hips injured by a piece of roof | it dov Isting | miner to tamp a note charged with dy- namite. The charge exploded. Leg fractured while attempting to cross to the opposite side, ahead of a loaded car. The car struck him. |
|--|---|---|---|---|--|---|--------------------------------------|--|---|---|---|--|---|--|--|--------------------------------------|--|---|------------------|--|
| | | | | | | | | | | Lackawanna, | | | | | _ | | | - | | |
| Moosic Mountain, | Jermyn, | No. 1 Carbondale, | Clinton, | Grassy Island, | Mt. Jessup, | No. 1 Carbondale, | No. 1 Carbondale, | Mt. Jessup, | Pancoast, | Mt. Jessup, | Pancoast, | No. 1 Carbondale, No. 1 Carbondale, | Black Diamond, | Sterrick Creek, | No 2 Pennsylv's | No. 2 Pennsylv'a, | Keystone, | Sterrick Creek, . | Clinton, | Erie, |
| : | M. | M. | si. | 'n | vi | υż | vi | νi | vi | M. | M. | M. | M. | M. | | vi | M. | υż | βi | υi |
| 16 | 8 | 47 | 12 | 53 | 21 | 62 | 19 | 24 | 19 | 31 | 63 | 17 54 | 40 | 20 | | 123 | 28 | 24 | 30 | 12 |
| Doorboy, | Laborer, | Laborer, | Driver, | Laborer, | Locomo t i v e fireman, | Assistant | Driver, | Runner, | Driver, | Laborer, | Miner, | Driver, | Miner, | Miner, | Miner | | Laborer, | Miner, | Laborer, | Runner, |
| English, | English, | Italian, | American, | American, | American, | Welsh, | American, | Polish, | English, | Italian, | Russian, | American, | English, | Italian, | Austrian, | Austrian, | Austrian, | Italian, | Austrian, | Irish, |
| | William Arthur, | Rose Scarpell, | Robert Davis, | Frederick Davis, | Albert Morgan, | Morgan Thomas, | James Kerins, | John Labock, | Ralph Atkinson, | Dominick Matal | Alexander Dudar, | Robert Judge, John Pfoor, | Joseph J. Jenkins, | Martin Prutchic, | John Frestco, | : | Peter Yoncovitch, | Angello Manche, | Frank Skubic, | 2 John Nolan, |
| | 14 | 14 | 16 | 21 | 29 | | çş | ======================================= | 18 | 35 | 8 | 410 | 18 | 36 | 36 | 56 | 53 | 29 | 31 | |
| March | | | | | | April | | | | | | May | | | | | | | | June |

TABLE 5.- Continued

| Nature and Cause of Accident in Brief | Arm fractured, caught between mule and | g car off | cargo, rie was squeezed between the car and a timber. Outside, Phibs broken and injured internally by a fall of roof while loading a car. The | chamber was being opened. Three fingers cut off by a rope which he | was putting on a sheave. Leg fractured by flying coals from a | blast. He shortened the squib. Head and back injured by top coal falling | on him while barring it down. Head and ear bruised by being kicked | | Arm squeezed badly while coupling cars. | by a fall of r | which appeared as a tim scale. He attempted to pull it down with his | Arm fractured by fall of roof while load- | ing a car near face of chamber. Head injured seriously by flying coals | The first two fingers on right hand cut | out by a rail of root, while assisting to replace a car that was off the track. Loft lest inluded by being squeezed between the tank of a locomotive and a mine car. Outside, |
|---------------------------------------|--|-----------------|---|--|--|---|--|-----------------|---|----------------|--|---|---|---|---|
| County | | | | | | | | Lackawanna, | | | | | | | |
| Name of Mine | Jermyn, | Erie, | No. 2 Pennsylv'a, | Eddy Creek, | Pancoast, | Powderly, | Jermyn, | Pancoast, | Pancoast, | Pancoast, | | Erie, | Pancoast, | Jermyn, | No. 2 Olyphant,. |
| Married or single. | M. | υż | M. | υi | υż | M. | vi | M. | ×. | M. | | vi | M. | M. | bi |
| | 23 | 23 | 46 | 19 | 22 | 46 | 22 | 39 | 36 | 43 | | 20 | 32 | 53 | 20 |
| Occupation | Laborer, | Dumper, | Laborer, | Driver | Miner, | Miner, | Laborer, | Miner, | Car-runner, . | Miner, | | Laborer, | Miner, | Miner, | Locomot i v e- runner. |
| Nationality | American, | American, | Italian, | American, | Polish, | Irlsh, | Russian, | Russlan, | Russian, | English, | | Polish, | Russian, | American, | American, Locomot Iv e- |
| Name of Person | 9 Albert Lee, | Arthur Swigert, | Anthony Brara, | John Hammond, | John Scratch, | Michael Mannion, | Michael Ordoek, | Adam Evanitski, | John Grove, | John May, | | John Mosty, | George Manslokorski, | George Bennett, | Frank Missett, |
| Dale of accident | June 9 | 14 | 19 | 20 | 22 | 28 | July 5 | 10 | 19 | 19 | | 19 | 22 | 2.2 | 30 |

| Hips injured by being squeezed between | Arm fractured by falling while crossing | Hip fractured, by being struck with an empty car. | Leg fractured and crushed by a loaded car. While reaching to the top of car for his dinner pail, he slipped and fell | under. Thigh fractured by fall of roof near face of chamber. | Hand badly lacerated by being caught between a car and headlock. | Foot crushed by a locomotive. Outside. Foot crushed by being caught in rolls. | Leg injured by a car jumping off the track while removing it from cage. | Outside. Leg cut by flying coals from a blast. Body and legs injured by being squeezed between on and rib. | Injured internally by a culm car under the breaker. Outside, | Injured internally by being squeezed be- | them. Spine njured by a fall of top coal. Knee cap cracked by falling from a boiler that he was directing to be wiscol for a stack Outside to be | Body and legs injured seriously by be- ing squeezed between car and pillar. | Leg fractured by being struck with a rope on slope. While pulling the trip from foot, the rope swung to the side. |
|--|---|---|--|--|--|---|---|---|---|--|--|--|---|
| Hip Hip | Arm | Hip | Leg | Thi | Har | FOO | Lackawanna, Leg | Leg | Inju | Inju | Spin | Bod | Leg |
| No. 1 Carbondale | Gipsy Grove, | M. Pancoast, | Finn, | No. 2 Pennsylv'a, | No. 1 Carbondale, | No. 2 Olyphant, East Mountain, | Pancoast, | Jermyn, | Gipsy Grove, | Eddy Creek, | No. 2 Pennsylv'a, Mt. Jessup, | Mt. Jessup, | Mt. Jessup, |
| | : | M. | : | M. | : | :: | M. | Z vi | : | M. | io K | vi | vi |
| 44 | 14 | 55 | 17 | 41 | 17 | 11 | 31 | 32 | | 34 | 38 | 25 | 11 |
| Miner, 44 M. | Slatepicker, | Doorman, | American, Dríver, | Miner, 41 | Driver, | Car-oiler, | Headman | Laborer, | Laborer, 14 | Miner, | Miner, 36 Carpenter, 29 | Runner, 25 | American, Driver, |
| | | | : | | | | | | : | : | | | : |
| Irish, | American, | Hungarian, | American, | Italian, | American, | American, | Italian, | Russian, | Slavonian, . | Slavonian | Slavonian, | American, | American, |
| : | : | - | | : | : | | : | | | | | : | |
| | ilger, | Baun, | | Donato Zaccagnine, | | Voolen, | ance, | is, itco, | | | Frank Motso, Daniel O'Connor, | Richard Harding, | Stephen Powanda, |
| 16 Anthony O'Hara, | Charles Pilger, | Shanadoa Baun, | William Priestly | Donato Za | Louis Simpson, | Samuel Woolen, Charles Gibbs, | Ralph Scance, | John Boris, | Stephen Moscow, | John Kappe | Frank M Daniel O | Richard | Stephen F |
| 16 | 31 | 11 | 14 | 19 | 72 | 22 | 98 | 30 | 03 | 14 | 22 | 23 | 88 |
| Aug. | | Sept. | | | | Oct. | | | Nov. | | Dec. | | |

FATAL ACCIDENTS

By Falls of Coal, Slate and Roof

There were 32 fatal and 66 non-fatal accidents reported during the year. 28, or 87.5 per cent. of the fatal accidents occurred inside the mines, and 4, or 12.5 per cent. outside. The fatal accidents from falls of coal and roof increased 50 per cent. over 1904, and 23.53 per cent. over 1903. The number of tons produced increased almost 15.25 per cent. over that of 1904, and the number of tons mined per fatal accident decreased 9.45 per cent. Of the 12 miners who lost their lives from falls, 10, or 83-1-3 per cent. could have been saved; and of the 9 miners' laborers, 6, or 66.2-3 per cent. could have been saved, as these accidents can all be attributed to incompetency and carelessness.

The above statement shows that the number of accidents of this kind might have been 5 instead of 21, or a reduction in the number of about 76 per cent. I have made special effort to discover the causes of so many accidents happening from these falls, and conclude that there are two, viz: incompetency and carelessness.

I have met a number of miners who could not speak a word of English. These miners are necessarily incompetent and have no coaception of the dangers attending their work. It is absurd to think that they can take care of themselves or their laborers. Nevertheless

they hold certificates of competency.

The second cause, carelessness or indifference, is found to exist principally among the miners having the most experience. When their attention is called to any dangerous condition of the roof, they will answer by saving, "We are aware of it and are providing against it," but frequently we find these same men among the victims from falls of roof. When the roof is in a "faulty" condition, it is necessary to use more care and judgment to keep safe, and when such conditions exist, if it is found practicable, especially in small veins, the roof should not be disturbed by blasting for height, for by doing so, the dangers are increased to a great extent. Height sufficient may be obtained by taking up the bottom. When the above conditions prevail, I would respectfully suggest that the proper officials of the companies take up bottom instead of taking down top. It would be well for the miners of this district to pay more attention to the necessity of standing more temporary props close to the face of the workings. It can be proved that 95 per cent, of the fatal and non-fatal accidents from falls of roof are happening within six or eight feet from the face of the workings. I wish respectfully to call the attention of all miners to General Rule 14, of the mine law, which reads as follows: "Any person having charge of a working place in any mine shall keep the roof and sides thereof properly secured by timber or otherwise, so as to prevent such roof and sides from falling, and he shall not do any work or permit any work to be done under loose or dangerous material except for the purpose of securing the same." If the proper attention is given to the above remarks, it may be the means of reducing the number of accidents from falls of roof, below the awful mark it has reached.

By Mine Cars-Inside

There were two fatal accidents inside by mine cars, one less than in 1904, and three less than in 1903. One of those unfortunates was a miner. While attempting to get out of the way of a car which was being run out to the heading, he stepped into the airway and was struck by a loaded car that was being run from the airway. The other was a laborer who had finished his day's work, and while traveling out the heading, he stepped aside to allow a trip of loaded cars to pass, and the trip was uncoupled before it reached him. He jumped on the rear end of the trip while passing him and the other part of the trip bumped the cars on which he was riding and killed him.

I am pleased to state that not one fatal accident from this cause happened to any driver or runner, and the careless habit of riding with one foot sliding along the rail is disappearing.

By Blasts

There were two fatal accidents due to this cause. There is a very dangerous habit which seems to be increasing among the foreign element of miners—shortening the squib, with the usual result—forfeiture of life. The above two accidents happened in this manner, and I know of nothing better to suggest to reduce accidents of this kind than a strict adherence to General Rule 32 of the mine law.

By Dynamite

There was one miner lost his life by tamping a hole with an iron bar that was charged with dynamite and percussion cap. This habit has been condemned repeatedly, and the danger attending such practice fully explained. As a means of reducing accidents of this kind, all companies should furnish wooden tamping bars to the miners at a nominal cost.

By Falling Into Shafts

There were two lives lost by falling into shafts. Every precaution was taken to provide against accidents of this kind, but still there are two to record. One of these occurred while the victim was taking a ladder from the cage, which was 16 feet lower than the landing on which he stood. He overbalanced and fell on the top of the cage and was fatally injured. The other occurred while the victim was attempting to cross from one side of the shaft to the other. He walked into the open shaft. They were hoisting from this lift at the time, and he thought the cage was down on the side he walked into.

By Machinery—Outside

More attention should be given to prevent accidents to boys in and around breakers. Very often when repairs are made in the breakers, the revolving machinery, and other dangerous places are left exposed, and are sources of danger. Two boys lost their lives in breakers during the year. Inquests held on both cases rendered a verdict of accidental death.

CONDITION OF COLLIERIES

DELAWARE AND HUDSON COMPANY

The ventilation in some of the mines can be greatly improved. The current is not conducted properly to the face of workings. The conditions as to safety are good; roads and drainage good.

PRICE-PANCOAST COAL COMPANY

Ventilation very good. Roads and drainage good. Condition as to safety good.

PENNSYLVANIA COAL COMPANY

The ventilation has been improved, but there is need for more improvement. Roads and drainage fair. Condition as to safety good.

STERRICK CREEK COAL COMPANY

The ventilation is being improved. Roads and drainage good. Condition as to safety good.

DOLPH COAL COMPANY

Ventilation fair. Roads and drainage good. ('ondition as to safety good.

HILLSIDE COAL AND IRON COMPANY

Ventilation good. Roads and drainage fair. Condition as to safety fair.

MT. JESSUP COAL COMPANY

Ventilation bad. Roads and drainage bad. Condition as to safety fair.

MOOSIC MOUNTAIN COAL COMPANY

Ventilation fair. Roads and drainage bad. Condition as to safety fair.

CARNEY AND BROWN COAL COMPANY

Ventilation, roads and drainage fair. Condition as to safety fair.

BLACK DIAMOND COAL COMPANY

Ventilation good. Roads and drainage fair. Condition as to safety fair.

EDGERTON COAL COMPANY

Ventilation, roads and drainage fair. Condition as to safety fair.

FINN COAL COMPANY

Ventilation fair. Roads and drainage fair. Condition as to safety fair.

MOWRY AND WILSON COAL COMPANY

Ventilation, roads and drainage fair. Condition as to safety fair.

EAST MOUNTAIN COAL COMPANY

General condition fair.

IMPROVEMENTS

DELAWARE AND HUDSON COMPANY

Clinton.—New tail rope installed 1,000 feet in length, with a pair of double engines 14x20 inch in River Side Slope to pull coal north and south. A new hospital "First Aid," and wash house has been erected outside for employes of the Dunmore vein. Two new ventilating fans erected, each 20 feet in diameter.

No. 1. Carbondale.—Tail rope has been extended 1,000 feet, deliver-

ing cars to main line.

Powderly.—New car shop, supply house and blacksmith shop

erected.

Jermyn.—Rock tunnel completed from the Archbald vein to the Dunmore vein, distance 125 feet. New electric motor $4\frac{1}{2}$ tons with 12x18 inch reel on top for lowering loaded and hoisting empty cars in chambers.

White Oak.—New car shop has been erected. New plane in Dunmore vein finished.

PRICE-PANCOAST COAL COMPANY

A rock slope has been sunk in the Diamond vein over the "Anticlinal." A pair of double engines has been put in same vein to hoist the coal from this slope; size of engines 24x36 inch. In No. 3 vein a slope has been sunk 600 feet in length to the river line, and a pair of engines put in to hoist the coal, 12x12 inch in size. No. 2 Gravity Plane that was abandoned six years ago has been opened. In the Clark vein a new plane has been built, 600 feet in length. Dunmore No. 2 vein, the west slope, 900 feet in length, has been graded, and a pair of engines 12x12 inch in size erected outside to hoist the coal. One 250 horse power boiler was installed.

PENNSYLVANIA COAL COMPANY

No. 1 Colliery, Outside—In 1904, work was commenced on the installation of 300 additional horse power "Babcock and Wilcox" boilers, and new 10 foot forced draft fan; also new "Cochrane" feed water heater and 12x8x12 inch "Duplex Scranton Pump" and new 50,000 gallon water tank. This work has all been completed during the year. The following buildings have been erected during the year. A new stone powder house 12x14 feet; a new stone oil house 12x12 feet 7 inch; also new brick wash house for miners 16x24 feet. Work is progressing on new brick building 16x36 feet to contain three rooms; office for outside foreman, shifting shanty for firemen, and shifting place for breaker men.

No. 2 Shaft, Outside.—The fan and head house, which was burned during the year, has been replaced by concrete buildings. A 12 inch concrete wall has been built between the down-cast and up-cast

from foot of shaft to fan.

No. 1 Shaft, Inside.—Water tunnel from Lackawanna river to No. 1 Shaft. No. 1 Colliery has been driven in 1,600 feet during the year, and on the No. 1 end, 1,900 feet. Total distance driven since the tunnel was commenced, 5,200 feet. Distance yet to be driven, 1,600 feet. Another tunnel has been driven 675 feet from the third Dunmore vein to the second Dunmore vein, to carry the water to main tunnel, sectional area 6x9 inch.

No. 2 Shaft, Inside.—The new engine plane that was commenced in 1904, has been completed and is now in operation. A new airbridge has been built on engine plane, sectional area, 120 square feet.

STERRICK CREEK COAL COMPANY

Sterrick Creek.—The Dunmore fan, which was located above the Clark vein water level, about 4,000 feet east of breaker, was removed to the Clark vein air shaft, a distance of 3,000 feet south westerly. The new location is 400 feet from the Dunmore haulage engines and the fan receives its steam from the pipe line which supplies these engines. The friction is reduced by this change, three thousand feet, and the efficiency of the fan increased.

A ten inch bore hole was driven from the surface to the Clark vein, depth 265 feet, and 2,000 feet of 6 inch wooden pipe laid to carry the culm from the breaker to the Clark vein workings. Eight new shaking screens were installed in the breaker with decks ranging from 18 to 24 feet in length, to take the place of eight 12 foot shakers, which were inadequate with the increased output.

Three balance planes above the water level in the Dunmore vein were changed to one plane, and a pair of 12x12 inch engines installed to operate the same.

DOLPH COAL COMPANY

Air shaft completed from the surface to the Clark vein. A new ventilating fan, 20 feet in diameter, erected at head of air shaft. Extensive improvements were made outside. Previous to 1905, no box cars could be run under the breakers, owing to their height. With the improvements made, this condition is changed. The new chain hoist at head of breaker works very satisfactorily, and with the electric motor which conveys the mine cars to and from the "chain hoist," a great many mules are dispensed with, and all trouble in this line eliminated.

MT. JESSUP COAL COMPANY

A new ventilating fan has been erected at the head of the "North pitch" air shaft to ventilate the Clark vein workings. The diameter of fan is 14 feet.

HILLSIDE COAL AND IRON COMPANY

Erie.—One new 900 H. P. Sterling type water tube boiler plant with Sturdevant cold air blast and exhaust steam boiler feed heater.

Two 12x6x12 inch duplex plunger pumps for boiler feed and fire protection in boiler plant. One new washery; capacity 800 tons per day. New steam plane 7x12 inch in area and 4,200 feet in length. The same is equipped with a pair of engines 16x20 inch cylinder.

Third District

LACKAWANNA COUNTY

Scranton, Pa., February 23, 1906.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting my report as Inspector of Mines for the Third Anthracite District for the year 1905, as provided in the act of 1903.

It contains the usual statistics, together with the accidents tabulated as required by law.

Respectfully submitted, H. O. PRYTHERCH, Inspector.

SUMMARY OF STATISTICS

| Number of collieries, | 20 |
|--|-----------|
| Number of mines, | 25 |
| Number of mines in operation, | 25 |
| Number of tons of coal shipped to market, | 4,009,891 |
| Number of tons used at mincs for steam and heat, | 239,286 |
| Number of tons sold to local trade and used by employes, | 259,028 |
| Number of tons produced, | 4,508,205 |
| Number of persons employed inside of mines, | 7,482 |
| Number of person employed outside, | 2,383 |
| Number of fatal accidents inside of mines, | 34 |
| Number of fatal accidents outside, | 3 |
| Number of non-fatal accidents inside of mines, | 88 |
| Number of non-fatal accidents outside, | 13 |
| Number of tons of coal produced per fatal accident inside, | 132,594 |
| Number of persons employed per fatal accident inside, | 220 |
| Number of persons employed per fatal accident outside, | 794 |
| Number of persons employed per non-fatal accident inside, | 85 |
| Number of persons employed per non-fatal accident | |
| outside, | . 183 |
| Number of wives made widows, | 17 |
| Number of children orphaned, | 26 |
| Number of steam locomotives used outside, | 13 |
| Number of compressed air locomotives used inside, | 5 |
| Number of electric motors used inside, | 50 |
| Number of fans in use, | 27 |
| Number of gaseous mines in operation, | 19 |
| Number of non-gaseous mines in operation, | 6 |

TABLE A

PRODUCTION OF COAL

| Names of Operators | Tons |
|--|-------------|
| Delaware, Lackawanna and Western Railroad Company, | 2,028,270 |
| Scranton Coal Company, | 1,139,100 |
| Delaware and Hudson Company, | 475,416 |
| People's Coal Company, | 324,661 |
| Pennsylvania Coal Company, | 192,927 |
| Green Ridge Coal Company, | $153,\!297$ |
| A. D. and F. M. Spencer, | 64,775 |
| Economy Light, Heat and Power Company, | 56,639 |
| Nay Aug Coal Company, | $38,\!254$ |
| Bull's Head Coal Company, | $19,\!371$ |
| J. J. Gibbons, | 12,000 |
| Mountain Lake Coal Company, | 3,495 |
| Total, | 4,508,205 |
| | |
| Production by Counties | |
| Lackawanna, | 4,508,205 |

TABLE B.-Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

| | per non-fatal accident | 690 690 132 92 | 183 |
|---------------------|---|---|-----------------------------------|
| əbla | Number of employes out | | _ |
| əpis | Number of employes in per non-fatal accident | 98 132 133 156 156 | 85 |
| əbis | Number of employes out per fatal accident | 690 | 794 |
| əbis | Number of employes in per fatal accident | 229 261 351 351 176 186 18 | 220 |
| Se | Total number of employ | 4, 371 1, 326 1, 326 412 445 398 59 339 339 | 9,865 |
| -9bi | Number of employee outs | 938 690 132 922 87 87 149 | 2,383 |
| qe | Number of employes insi | 3 433 1,825 1,053 1,053 353 311 37 190 | 7,482 |
| per le | Tons of coal produced and Transfer inside | 57, 951 71, 194 59, 427 21, 644 19, 292 76, 648 | 51, 229 |
| per | Tons of coal produced falsi are falsi | 135, 218 162, 729 158, 472 64, 932 96, 463 76, 648 | 132, 594 |
| idents | Total | 339 1177 1186 1186 1186 1186 | 101 |
| tal Acc | əbistuO | *************************************** | 13 |
| Non-fatal Accidents | əbizaI | 25 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | - 88 |
| ents | Total | FU 00 60 FU 60 44 | 17 |
| Fatal Accidents | Outside | 1 2 | es |
| Fata | əpisuI | [[[[[[[[[[[[[[[[[[[| 34 |
| | | D. L. and W. R. R. Co., Scranton Coal Co. Delaware and Hudson Co., Peoples Coal Co., Pennsylvaria Coal Co., Green Ridge Coal Co., Bulls Head Coal Co., Miscellaneous companies, | Totals and averages for district, |

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

| | 1 | | | | | | Mo | onth | S | | | | | |
|--|---------|----------|-------|-----------------|-----|------|--------|--------|-----------|---------|----------|----------|------------------------------|--|
| Causes of ⁴ Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Falls of roof, Mine cars, Explosions of gas and dust, Premature blasts, Falling into shafts, Miscellaneous | | 1 | 1 | 3 1 1 | 2 2 | 1 | 3 2 | 3 | ····· | 1 | 3 | 1 | 19 10 1 1 2 1 | 55.88 29.41 2.94 2.94 5.89 2.94 |
| Totals, | == | 3 | 2 | | 4 | 1 | 5 | 3 | | 3 | | 2 | 34 | 100 |
| Causes of Accidents Outside Suffocation in chutes, etc., | | 1 | | | 2 | | | | | | | | 3 | 100 |
| Totals, | | 1 | | | 2 | | | | | | | | 3 | 100 |
| Grand totals inside and outside, | | 4 | 2 | 6 | 6 | 1 | 5 | 3 | 2 | 3 | 3 | 2 | 37 | |

TABLE D.-Classification of Non-fatal Accidents Inside and Outside of Mines

| | | | | | | | M | onth | s | | | | | |
|---|---------|------------------|------------|-------|-----|------|------|-------------|-----------|---------|----------|----------|--------------------------|---------------------------------|
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Falls of coal, Falls of roof, Mine cars, Explosions of gas and dust, Explosions of powder and dynamite, | 1 | 1 6 2 2 | 7 4 | 6 | 4 | 1 2 | 1 3 | 1 2 1 | 1 | 5 3 | 1 4 | 1 3 | 1 25 25 16 2 | 1.14 28.41 28.41 18.19 |
| Premature blasts, By mules, Miscellaneous, | | 1 1 1 | 3 1 | i | 2 | | 1 | 1 1 | 1 | ···· | 1 | 1 | 10 3 6 | 11.86 3.41 6.82 |
| Totals, | 2 | 14 | 15 | 7 | 11 | 3 | 5 | 6 | == | 9 | 8 | 6 | 88 | 100 |
| Causes of Accidents Outside Cars, Machinery, Miscellaneous, | | 3 | | 2 | | 1 1 | | | | 1 1 | 1 | | 9 | 15.38 15.39 69.23 |
| Totals, | 2 | $\frac{3}{17}$ | 3 18 | 2 | 11 | 5 | 5 | 6 | 2 | 11 | 9 | 6 | 13 | 100 |

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

| | | | | | | N | [ont] | hs | | | | | |
|---|---------|----------|-------|-------|--------------|------|-------|--------|----------------|---------|----------|----------|-------------------------|
| Inside | January | February | March | April | Мау | June | July | August | September | October | November | December | Totals |
| Miners, Miners' laborers. Drivers and runners. Doorboys and helpers, 'ompany men, | | 2 | | 1 | 1 1 1 1 | 1 | 1 2 1 | 2 1 | . i . i | 3 | | 1 | 11 13 4 3 3 |
| Totals, | | 3 | 2 | =- | - | 1 | 5 - | 3 | 2 | 3 | 3 | _2 | 31 |
| Outside Slatepickers (boys), | | | | | 2 | | | | | | | | 2 |
| Totals, | | 1 | | , | 2 | | | | | | | | 3 |
| Grand totals inside and outside, | | 4 | 2 | 6 | 6 | 1 | 5 | 3 | 2 | 3 | 3 | 2 | 3 |

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

| | | | | | | M | Iontl | hs | | | | | |
|---|---------|-------------------|---------------------------|---------|----------------------|------------|-------|--------|-----------|--------------|----------------------------|----------|---|
| Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Pire bosses and assistants, Miners, Miners' laborers, Derivers and runners, Doorboys and helpers, Pumpmen, Company men, All other employes, Totals, | | 6 5 2 | 1 2 2 8 1 | 3 2 1 1 | 3 5 2 1 | 1 2 | 2 2 1 | 3 1 2 | 1 1 | 5 1 3 | 3 2 1 1 1 8 | 1 6 = | 1 29 23 24 1 1 3 6 |
| Outside Engineers and firemen, Slatepickers (boys), All other employes, Totals, Grand totals inside and outside, | 2 | 1 2 3 17 | 1 2 3 18 | | | 1 2 5 | | 6 | | 2 2 11 | 1 1 9 | 6 | 1 2 10 13 101 |

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|---------------------------------------|---------|----------|-------|-------|-----|------|--------|--------|-----------|---------|----------|----------|--------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| American, English, | | 1 | 2 | 1 1 | | 1 | 2 | 2 | 1 | 1 1 | | 1 | 1 |
| Welsh, Scotch, Irish, German | | | | 1 2 | 1 2 | | 1 1 | , | | | ···· | 1 | |
| Polish, Italian, Slavonian, | | 2 | | 1 | 1 | | 1 | 1 | 1 | 1 | 2 | | |
| Lithuanian, Totals, | | 4 | 2 | 6 | 6 | 1 | 5 | 3 | 2 | 3 | 3 | 2 | 3 |

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|---|---------|----------|-----------|-------------|-----|------|------|------------------|-----------|----------------------|---------------|----------------------|--------------------------------------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| American, English Welsh, Scotch Irish, German, Polish, Italian, | 1 | 10 | 8 1 2 5 2 | 3 | 3 | 2 | 1 2 | 1 3 1 1 | i i | 3 1 1 4 | 1 1 2 1 1 3 1 | 1 1 2 1 | 21 4 14 22 25 2 19 |
| Slavonian, Lithuanian, Austrian, Swedish, | | | | 1 1 1 | | | | | | 1 | | | 3 3 1 2 |

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each person per minute

| Average number of cubic feet to to be bivord annual person to | 356 525 243 546 2,666 382 226 347 347 | 422 467 550 477 | 475 | 598 |
|---|---|--|---------------------------------|-------------------|
| Number of persons employed | 539 61 370 236 1152 1153 365 334 349 | 486 260 260 113 | 433 | 205 |
| Number of cubic feet per- minute passing out at out- jet | 347, 0-0 52, 700 224, 980 234, 000 72, 000 45, 700 128, 600 257, 350 | 239,330 152,000 162,230 83,700 | 292,000 | 127,400 |
| Total quantity of air per list of all sill sill sill sill sill sill sill | 192, 000 32, 000 32, 000 192, 678 32, 0-0 2, 8, 000 2, 800 116, 00 1188, 540 | 205,010 127,000 143,150 54,000 | 206,000 159,460 | 122,700 |
| Number of cubic feet of air per minute entering the min red min to mine at inlet | 223, 600 42, 400 105, 010 212, 818 34, 400 65, 5,0 65, 5,0 109, 617 1136, 300 | 226,000 140,00 151,250 60,000 | 306, 275 154, 200 | 125,400 |
| Number of splits of air cur- | 110 110 110 110 110 110 | | | |
| nt stad searth to serv. | | 13.9 | 121 | 6 |
| Power used | Steam, | Steam, Steam, Steam, Steam, | Steam, Steam, Steam, | Steam, |
| пал 10 эшвИ | Open running. | Open running, Open running, Open running, Guibal, | Open running, Guibal, | Open running. |
| Water gauge developed-in inches | 6 1010 F 0000 10 | 122 | 84.5 | 7. |
| Tag snoithfores to reduning per shring | 120 120 120 120 120 120 138 138 65 65 65 | 101 70 70 70 | 10.10.00 | 06 |
| Depth of blades in feet | ৰাৰ্ড ৰান্ত্ৰৰ ৰাৰ্থ ৰাজ্য তেওঁত তেওঁ তেওঁ ওঁওঁ | 41010101010 | 9.0 | 4 |
| Tidth of blades in feet | 4 4 6 4 4 6 4 4 4 6 6 6 6 6 6 6 6 6 6 6 | ក | 6010 | - 1 1 - |
| Diameter of fan in feet | . 48444644488 | 17 17 20 20 20 20 | 550 550 550 550 550 | 16 |
| Method of ventilation | Fans, (Fan, Fan, Fan, Fan, Fan, Fan, Fan, Fan, | Fans, | Fans, | Fan, |
| Gaseous or non-gaseous | Gaseous, Non-gas. Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, | Gaseous, Gaseous, Gaseous, | Gaseous, | Gaseous. |
| | ::::::::::::::::::::::::::::::::::::::: | : ::: | - 11 | :- |
| Kind of opening | Shaft, Slope, Shaft, Shaft, Shaft, Drift, Shaft, Shaft, | Shaft, Shaft, Shaft, Slope, | Shaft, Slope, | Shaft, |
| Names of Operators and Mines | S | Scranton Goal Co. Pine Brook, Capouse, Mount Pleasant, West Ridge, | | People's Coal Co. |

| 400 | | 407 | 865 | 21.9 | | |
|-------------------------------------|---|---|------------------------------------|------------------------------------|---------------|------------------------|
| 235 | 218 | | 20 | | | |
| 167,250 | 121,360 154,160 | 49,160 | 17,300 . 19,500 | 21,000 46,000 | | |
| 94,050 | 121,360 | 48, 150 17, 5 0 3, 000 2, 000 | 17,360 | 21,000 | | |
| 144,950 | 136,690 | 48,150 | | 3 46,000 | | |
| -6 | | - | | 00 | * | * |
| 6 | 1 :] | |] [] | H : | :: | 1 : |
| Steam, 9 144,950 91,050 167,250 235 | 48 2.5 Open running, Steam, 9 136,6:0 121,380 154,160 | .6 Open running, Steam, | 8 4 3.6 60 .2 Open running, Steam, | | | |
| 20 6.5 5 75 1.2 Guibal, | running, | running, running, | running, | | | |
| Guiba | Open | Open Open | Open | | | |
| 1.2 | 2.5 | .7 | 63 | | | |
| 52 | 90 | 120 | 09 | | | |
| 10 | 4 | 69 69 | 3.6 | : | | : |
| 6.5 | 4 | es es | **** | : | | |
| 30 | | 8 | | | | |
| Shaft, Gaseous, Fan, | Fan, | Fan, | Fan, | Natural, | Natural, | Non-gas. Natural, |
| Gaseous, | Slope, Gaseous, | Shaft, Gaseous, Shaft, Non-gas. | Non-gas. | Non-gas. | Non-gas. | Non-gas. |
| : | 1 | :: | : | : | : | : |
| | | | Slope, | Slope, | Drift, | Drift, |
| Pennsylvania Coal Co. | Green Ridge Coal Co. | A. D. and F. M. Spencer Spencer No. 1, Spencer No. 2, | Nay Aug Coal Co. | Bulls Head Coal Co. Bulls Head, | J. J. Gibbons | Mountain Lake Coal Co. |

*Variable quantities.

TABLE 1.-Operators, location of collieries, railroads, etc.

| L | | | | | | | | | | |
|---|-----------------------------------|---|---|---|--------------------------------|-----------------------|--------------------------------------|--|----------------------|--|
| | Railroad to Mine | D., L. and W. | Ontario and Western | Delaware and Hudson | D., L. and W. | Erle | Erie and Delaware and Hudson | Erie and Delaware, Lackawanna and West- ern | No railroad | Brie Brie |
| | Post Office | Seranton, | Seranton, | Seranton, | Scranton, | Dunmore, | Scranton, | Dunmore, | | Scranton. |
| | Name of Superin- tendent | E. L. Evans. Thos. I. Williams, Walter Reese, Walter Reese, Walter Reese, Walter Reese, Walter Reese, Fred. C. Smith, | John Van Bergen. John Van Bergen, John Van Bergen, J. F. Cummings, J. F. Cummings, | C. C. Rose. C. C. Rose. Fred Warner. | John G. Hayes, | John Reed, | W. L. Connell, | H. M. Spencer, | | Thomas H. Bray, Thomas H. Bray, |
| , | Post Office | Scranton, | Peckville, | Seranton, | Scranton, | Scranton, | Scranton, | Dunmore, | Seranton, | |
| | Name of General Superintendent | R. A. Phillips, | W. L. Allen, | C. C. Rose, | Lackawanna,. James G. Sheperd. | Wm. W. Inglis, | W. L. Connell, | A D. and F. M. Spencer | E. M. Stack | Lackawanna, Lackawanna, |
| | County | Lackawanna,. | Lackawanna,. | Lackawanna,. | | Lackawanna,, | Lackawanna,. | Lackawanna,. | Lackawanna,. | |
| | Names of Operators and Collierles | D., L. and W. R. R. Co. Bellevue Hyde Park Diamond Brisbin. Cavusca. Manville. Diamond washery. | Scranton that Co. Pine Brock. Captuse. Meunt Pleasant. West Edde. Capouse washer. Mount Pleasant washery. | Delaware and Hudsen Co. Dickson. Von Storch. | People's Coal Co. | Pennsylvania Coal Co. | Green Ridge Coal Co. Green Ridge, | A. D. and F. M. Spencer Spencer, Economy Light, Heat and Power | Co. Economy washery, | Nay Aug Coal Co. Nay Aug slope. Nay Aug washery, |

| | | | _ | |
|--|-------------------|--|-----------------------------------|-----------|
| | No railroad | No railroad | 1000 | DROJIE ON |
| Lackawanna D. I. Whiteford Scranton Tanashon Times | reranton, | | Lackawanna,. M. I. Ruddy Dunmore. | |
| Tonothon Times | ondringii vipoli, | | | |
| S. S | | Dunmore, | Dunmore. | |
| D. I. Whiteford | | J. J. Gibbons, | M. I. Ruddy, | - : |
| | | Lackawanna,. | Lackawanna,. | 1 |
| Bulls Head Coal Co. | J. J. Gibbons | Gibbons. Darkawanna, J. J. Gibbons, Dunmore, Dun | Mountain Lake Coal Co. | |

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder and dynamite used, etc.

| Number of horses and mules | 248804 - | 388 | 4 | 392 | 82 72 88 28 28 | 247 | | | 247 |
|---|---|-----------|------------------|-----------|--|----------|--|---------|-----------|
| Number of pounds of dynamite | 8, 387 275 7, 636 1, 611 10, 972 20, 000 | 54,881 | i | 54,881 | 20, 592 7, 919 4, 400 8, 850 | 41,761 | | : | 41,761 |
| Number of kegs of powder used | 16, 71 2 13, 546 17, 340 12, 955 12, 101 14, 144 | 86, 798 | - | 86,709 | 15,622 8,859 10,581 4,700 | 39, 762 | | | 39,762 |
| Number of non-fatal accidents | H Q Q SI A 10 | 39 | | 39 | 012010 | 16 | - | 1 : | 17 |
| Number of fatal accidents | 00H00 | 15 | | 15 | m==n | 2 | - | - | ∞ |
| Number of employes | 927 645 858 678 725 483 | 4,316 | 955 | 4,371 | 889 616 610 267 | 2,382 | 74 | 133 | 2,515 |
| Number of days worked. (Totals are averages, not including washeries) | 215 215 238 244 184 | 221 | 68 | 221 | 163 151 156 132 | 148 | 167 | 17.00 | 148 |
| Total production of coal in tons | 430, 218 296, 594 430, 335 353, 355 236, 679 187, 375 | 1,934,556 | 93,714 | 2,028,270 | 293, 269 247, 930 151, 424 51, 088 | 773,711 | 164,381 | 365,389 | 1,139,160 |
| Number of tons sold to local trade and used by employee | 16,259 19,008 6,998 5,325 8,676 | 58, 274 | | 58,274 | 1,675 3,176 3,468 1,445 | 9,764 | 2,324 | 2,350 | 12,114 |
| Number of tons used at collieries | 4,905 33,510 16,060 11,130 | 78,592 | 3,000 | 81,592 | 20,075 14,600 10,950 6,000 | 51,625 | 7,300 | 16, 425 | 68,050 |
| Number of tons of coal shipped | 413, 959 272, 681 389, 827 331, 970 216, 873 172, 380 | 1,797,690 | 90,714 | 1,888,404 | 271,519 230,154 167,006 43,643 | 712, 322 | 157,055 | 346,614 | 1,058,936 |
| County | Lackawanna, | | Lackawanna, | | Lackawanna,. | | Lackawanna, | | |
| Names of Operators and Collieries | Delaware. Lackawanna and Western R. R. Co. Bellevue. Hyde Park. Diamond. Bristin. Cayuta. Manville. | | Diamond washery, | Tetals, | Pine Brook. Scranton Coal Co. Capouer, Mount Pleasant, West Ridge, | | Capouse washery. Mount Pleasant washery. | | Totals. |

| 50 | 118 | 1 | 118 | 127 | 19 | 86. | 36 | | 10 | 10 | 14 | 60 | 10 | 1,057 | | 392 | 247 118 300 | 1,057 |
|----------------------------------|---------|---------------------|---------|---------------------------|--------------|----------------------|-----------------------------------|---|--|---------|--------------------------------|------------------------|------------------------|---------------|--|--|--|-----------|
| 7,816 | 24,117 | | 24,117 | 15,675 | 4,341 | 5,800 | 2,250 | | 1,300 | 1,300 | 150 | | | 150,275 | | 54,881 | 41,761 24,117 29,516 | 150, 275 |
| 9,614 12,637 | 22, 251 | | 22, 251 | 12,481 | 10,801 | 7,470 | 1,650 | | 225 | 225 | 800 | 009 | 205 | 183.044 | | 86, 799 | 39, 762 22, 251 34, 232 | 183,044 |
| 10 | 14 | | 14 | 16 | = | C1 | : | : | | | | : | : | 101 | 1 | 33 | 17 14 31 | 101 |
| .00 | co | | 60 | 13 | 61 | 4 | | | | | | | | 37 | . | 15 | 8821 | 37 |
| 730 | 1,305 | 21 | 1,326 | 412 | 445 | 398 | 218 | 135 | 69 * | 63 | 59 | 26 | 19 | 9,865 | | 4,371 | 2,515 1,326 1,653 | 9,865 |
| 171 | 203 | 36 | 203 | 275 | 199 | 233 | 84 | 236 | 45 136 | 45 | 114 | 240 | 186 | 17.1 | | 221 | 148 203 172 | 177 |
| 153,341 | 467,476 | 7,940 | 475.416 | 324,661 | 192, 927 | 153,297 | 64,775 | 56,639 | 13, 403 24, S51 | 38,254 | 19,371 | 12,000 | 3,495 | 4,508,205 | | 2,028,270 | 1,139,100 475,416 865,419 | 4,508,205 |
| 2,856 | 6.751 | | 6,751 | 109,198 | 21.380 | 27, 459 | | | 109 | 109 | 10,613 | 11,526 | 1.610 | 259,028 | Recapitulation | 58,274 | 12,114 6,751 181,889 | 259,028 |
| 1 152,00 | 50,734 | | 50,734 | 18,377 | 2,418 | 11,790 | | | 2,325 | 9,395 | 1,500 | 480 | 100 | 239, 286 | Recapi | 81, 592 | 68,050 50,734 38,910 | 239, 286 |
| 156,485 | 409,991 | 7,940 | 417,931 | 197,086 | 169, 129 | 114,048 | 1 1 | 54,719 | 10,960 24,851 | 35,820 | j | | 1,785 | 1,009,891 | TABLE 2. | 1,888,404 | 1,058,936 417,931 644,620 | 4,009.891 |
| Lackawanna, | | Lackawanna, | | Lackawanna, | Lackawanna, | Lackawanna, | Lackawanna, | Lackawanna, | Lackawanna, | | Lackawanna, | Lackawanna, | Lackawanna, | | | | Lackawanna, | |
| Dickson, Delaware and Hudson Co. | | Von Storch washery, | Totals, | Oxford, People's Coal Co. | No. 5 shaft, | Green Ridge Coal Co. | Spencer, A. 1). and F. M. Spencer | Economy Light, Heat and Power Co. Economy washery. | Nay Aug Coal Co. Nay Aug slope, Nay Aug washery. | Totals, | Bulls head Bulls Head Coal Co. | Gibbons, J. J. Gibbons | Mountain Lake Coal Co. | Grand totals, | *Included with employes for Nay Aug slope. | Delaware. Lackawanna and Western R. R. | Co. Scranton Coal Co. Delaware and Hudson Co. Miscellaneous commanies. | Totals, |

TABLE 2.— Centinued

| | REPORT OF THE | DEFARIMENT OF MIL |
|-------------------|---|--|
| | Number of air compressors | 60 (H) (1) (1) |
| | Number of electric dynamos | ω ₁ Η Η Ω ₂ |
| per | Quantity delivered to surface minute—gallons | 12, 196 11, 750 14, 750 150 253 263 360 460 460 |
| əşn | Capacity in gallons per min | 21, 128 13, 155 2, 960 1, 575 1, 784 400 400 |
| Suin | Number of pumps delive | %24 ∞ ≈ 21 H H 0. |
| | Total horse power | 10,837 3,4544 3,4544 8,574 11,453 11,60 11,60 11,80 |
| lis ' | Number of steam engines of | 308 |
| ves | ्रांग्रञ्जसि | %F 94% 9 |
| Locomotives | TiA | 10 |
| Local | Steam | 11.02 |
| | Total horse power | 13, 665 18, 665 18, 665 |
| Boilers | Horse power | 9, 545 9, 345 9, 345 180 180 180 180 180 180 180 180 |
| Number of Boilers | Tubular | 0.4 000000 HL 0.5 |
| Num | Horse power | 4,086 1,80 1,50 230 230 9,068 |
| | Cylindrical | 8615 1 6. 6. |
| | County | Lackawanna |
| | Names of Operators | D. L. and W. R. K. Co. Serancon Ceal Co. Delaware and Hudson Co. People's Ceal Co. Gren Rible Coal Co. At. D. and F. M. Spencer, Nay, Ang Coal Co. Nay, Ang Coal Co. J. J. Gibbons, J. J. Gibbons, Mountain Lake Coal Co. Totals. |

TABLE 3.-Number of each class of employes inside and outside of mines

| | | | 316 | 92 | 5 | 889 019 010 261 | 382 | 494 1 ~ |
|---------|---------------------------------------|--|-------|------------------|---------|---|-------|------------------|
| | Grand total inside and outside | | 4, | | 4,371 | 00001 | 2,3 | |
| | Total outside | 190 136 209 1119 131 | 888 | 49 | 938 | 187 167 135 68 | 292 | 1- |
| | All other employes | \$3.50 S.S. 5.51 \$3.50 S.S. 5.51 \$4.50 S.S. 5.51 | 397 | 38 | 425 | 5888 | 213 | 17.5 als |
| | Вооккееретя and clerks | 4010101000 | 15 | c1 | 17 | 0101014 | 1- | 1 |
| de | Slate pickers (men) | 12 18 18 18 19 | 67 | : | 29 | 31 14 14 | 1.8 | 1 |
| Outside | (840d) stekhiq etal | 45.46.25 62.04.00 63.85 64.00 64.00 64.00 64.00 64.00 64.00 65.00 | 293 | - | 294 | 1582531 | 175 | t + |
| | Engineers and firemen | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 69 | 4 | 13 | 512514 | 38 | t= |
| | Blacksmiths and carpenters | 15 1 2 4 6 c c c c c c c c c c c c c c c c c c | 42 | 63 | # | 133 | 63 | 01 |
| | Ротеплел | | 9 | 1 | '-, | | 77 | |
| | stnabnatniraqus | | : | 1 | | - | 4 | |
| | obizni IsboT | 737 509 649 559 539 | 3,427 | 8 | 3,433 | 702 449 475 199 | 1,825 | |
| | VII ofper employes | 102 54 50 10 91 | 317 | | 317 | 108 98 35 35 35 | 313 | |
| | Сотрану теп | 26. 27. 17. 17. 88. | 250 | 4 | 254 | | | |
| | Битртеп | क ला स स स स स | 3 | : | 23 | 440 | 15 | |
| Inside | Door boys and helpers | 1683250 | 112 | _: | 112 | 11 20 6 | 45 | |
| Ins | steaming bas steaming | 852725 | 411 | : | 411 | 140 90 84 25 | 336 | |
| | Miners' laborers | 242 175 205 184 188 188 | 1,162 | : | 1,162 | 2222 | 550 | |
| | Miners | 242 1682 163 163 135 135 | .111 | prof | .112 | 210 135 135 155 | 536 | |
| | Fire bosses and assistants | @ 60 A 60 A 10 | (e1 | _: | 71 | \$ 00000 | 14 | |
| | Assistant mine toremen | | 00 | : | 00 | | 03 | Ü : |
| | Mine foremen | 00 00 03 | H | - | [김 | ==014 | 1.0 | |
| | County | Lackawanna, | | Lackawanna, | | Lackawanna, . | | Lackawanna, |
| | Names of Operators and Collifications | D. L. and W. R. R. Co. Bellevue. Hyde Fark Diamond Bresian Cavuen. Manyile. | | Diamond washery, | Totals, | Seranton Coal Co. Pine Brook, Capouse, Capouse, West Ridge, | | Capouse washery, |

TABLE 3.- Continued

| | Orand total inside and outside | 59 | 133 | 2,515 | 575 | 1,305 | 27 | 1,326 | 412 | 445 | 398 | 218 |
|---------|--|------------------------|-----|---------|--|-------|---------------------|---------|-------------------|---------------------------------------|----------------------|-------------------------------------|
| | Potal outside | . 69 | 133 | 069 | 109 | 252 | 12 | 273 | 132 | 92 | 1 12 | 82 |
| | All other employes | 45 | 98 | 312 | 49 | 100 | t- | 116 2 | 11 | 11 | 1 | £3 |
| | Bookkeepers and clerks | - | | 00 | 00.01 | 5 1 | <u>'</u> | 0 | 9 | 01 | es | 67 |
| 0 | Slate pickers (men) | : | - [| SS | 11 38 | 49 | | 100 | 1 60 | 23 | 03 | 60 |
| Outside | Slate pickers (boys) | | 12 | ! | 30 1 | 98 | . 00 | 1 | ii :: | | | |
| C | | | | 184 | | - | | 39 | 47 | 11 | 1 | 66 |
| | Engineers and firemen | | 12 | 50 | E8 | . 33 | 131 | 36 | 00 | 16 | 13 | = |
| | Blacksmiths and carpenters | 5 | 2 | 6 36 | 1 13 | 2 18 | 1 :: | 3 18 | 1 13 | 1 4 | 1 6 | ଣା |
| | Superintendents | | 63 | 9 | - | - | | = | | | 1 1 | |
| | obizni IstoT | | | 1,825 | 466 | 1,053 | | 1,053 | 280 | 353 | 311 | 133 |
| | All other employes | | | 313 | 4.03 | 9 | : | 9 | 16 | 19 | 24 | |
| | Сотралу теп | - | | | 88 | 159 | | 159 | 00 | 14 | 12 | 18 |
| | uəmdumd | | | 121 | c1 : | 0.1 | | c1 | cı | - | c) | 61 |
| Inside | thoor boys and helpers | | : | 15 | 20 | 900 | | 6: | g. | 431 | 13 | 60 |
| Ins | Drivers and runners | | | 336 | 5.73 | 155 | | 155 | 9: | 800 | 25 | 20 |
| | Miners' Inborers | | | 550 | 148 | 340 | 1 : | 340 | 105 | 137 | 1:0 | 44 |
| | stoniM | | | 536 | 148 | 337 | 1 | 327 | 06 | 138 | 100 | 444 |
| | Fire bosses and assistants | : | 1 | 14 | 1010 | 10 | ! : | 10 | c1 | - | (2) | : |
| | Assistant mine foremen | : | | ଦା | | 00 | . ! | 0.7 | - | | | |
| | Mine foremen | | | | | C 1 | | e1 | - | - | | 1 - 1 |
| | County | Lackawanna, | | | Lackawanna, Lackawanna, | | Lackawanna, | | Lackawanna, | Lackawanna, | Lackawanna, | Lackawanna, |
| | Names of Operators and Col- lieries | Mount Pleasant washery | | Totals, | Delaware and Hudson Co. Dickson. Von Storch, | | Von Storch washery. | Totals, | People's real Co. | Pennsylvania coal Co. No. 7 shaft. | Green Ridge Coal Co. | A. P. and F. M. Spencer Spencer. |

| 13 | 63 | 29 | 26 | 19 | 9,865 |
|--|--|----------------------|------------------------|--|---------------|
| 13 | 36 | 22 | | 8 | 2,383 |
| 10 | === | 9 | | 1 | 1,090 |
| | | | | 1 | 47 |
| | 60 | 4 | | 1 | 255 |
| | t- | 4 | 4 | 8 | 623 |
| c1 | 00 | c1 | - | - | 202 |
| : | 0.3 | 11 21 | - | !- - | 128 |
| H | W : | - | : | - | 6.3 |
| : | | | | 1 : | 12 |
| | 27 | 37 | 19 | 11 | 7,482 |
| | | | | | 169 |
| | t- | 12 | 60 | | 497 |
| | | | | | 47 |
| | | | | | 236 |
| | = | | က | | 890. |
| | 11 0. | 0 | 9 | | . 465 1 |
| - | 9 | | 9 | | 2,377 |
| : | | : | | | (5 |
| - | | | | | - E |
| | | | - | | 53 |
| Lackawanna, | Lackawanna, | Lackawanna, | Lackawanna, | Lackawanna, | |
| Economy Light, Heat and Power Co. Economy washery. | Nay Aug Coal ('0.) Nay Aug slope and washery, | Bull's Head Coal Co. | J. J. Gibbons Gibbons, | Mountain Lake Coal Co. Mountain Lake, | Grand totals, |

TABLE 3.- Recapitulation

| 4,371 2,515 1,326 1,653 | 9,865 |
|--|---------|
| 690 273 482 | 2,383 |
| 435 312 116 227 | 1,090 |
| 12 oro 12 | 17 |
| \$20 42 42 42 43 43 43 43 43 43 43 43 43 43 43 43 43 | 255 |
| 294 184 39 106 | 623 |
| 73 36 46 | 205 |
| 18 36 18 20 | 128 |
| - war- | 23 |
| # 0#4 | 12 |
| 3,433 1,825 1,053 1,171 | 7,482 |
| | 697 |
| 254 159 84 | 497 |
| SH 011- | 1- |
| 252 252 253 253 253 253 253 253 253 253 | 236 |
| 411 336 155 166 | 1,068 |
| 1,162 550 340 413 | 2,465 |
| 1,112 536 337 92 | 9.377 |
| 14 10 10 °C | E.S. |
| 65 91 65 61 | 10 |
| 1112 61 6 | - X |
| Lackawanna, | |
| D. L. and W. R. R. Co Scanton Coal Co Delaware and Hudson Co Miscellaneous Companies | Totals, |

TABLE 3.- Continued

| | уссыры. | 22 22 25 24 25 25 25 25 25 25 25 25 25 25 25 25 25 | 15 12 12 12 12 12 12 12 12 12 12 12 12 12 | 20 21 | 23 | 17 199 | 2 19 | 11 10 84 | 4 5 |
|----------------|-----------------------------------|---|---|--|---------------------------|--------------|----------------------|----------------------------------|---------------------------|
| | T9dot5O | | 122.00 | 200 | 62 | 14 | 18 | 10 | c: |
| ter | September | 61 80 80 171 171 | 1 1 2 2 2 | 151 | 6 | 10 | 123 | 11 | 1 |
| in Breaker |) sugny | 1288112 | 31 1 | 17. | c1 | 1 | 1.9 | | cc |
| Worked in | Alut | 119 119 119 118 | 113 9 111 9 | 20 21 | 08 | 13 | 14 | 9 | 8 |
| | əunr | 23 333 53 | 119 | 25 16 | 24 | 22 | 13 | x | 60 |
| Number of Days | May | 87 87 87 87 84 67 67 67 67 67 67 | 13 | 888 | 26 | 13 | 65 | 6 | in II |
| Num | lingA | 발얼됐다. | 19 16 111 | 12.83 | 25 | 19 | 18 | | |
| | Матећ | 6 112 115 22 22 22 22 22 22 22 22 22 22 22 22 22 | 18 16 14 | 88 | 51 | 13 | 61 | 63 | 9 |
| | February | 20 12 18 20 16 19 | 118 | 18 | e1 | 10 | 17 | La | 21 |
| | January | 18 16 15 15 15 18 | 11888 | 81 | 24 | 16 | | 10 | co |
| | County | Lackawanna, | Lackawanna,. | Lackawanna, | Lackawanna, | Laekawanna, | Lackawanna, | Lackawanna, | Lackawanna, |
| | Names of Operators and Collierles | Delaware, Lackawanna and Western R. R. Co. Bellewie, Hyder Pank, Diamend, Bersban, Bersban, Cayung, Manwille, J | Pine Brook, Capous, Capous, Mount Plesant, West Fide. | Dicks n. Delaware and Hudson Co. Von Sterch, | Oxford, Prople's Coal Co. | No. : shaff. | Green Bidge Coal Co. | Spenier. A. D. and F. M. Spencer | Nay Aug, Nay Aug Coal Co. |

| Bulls Head Coal Co., Lackawanna | Lackawanna | 11 | 10 | 11 | 10 | U. | - 6 | 6 | 6. | 6. | 6 | 10 | ø, | 114 |
|---------------------------------|-------------|----------|----|-------------------|----|----|-----|----|--|-----|----|----|----|-------------------|
| | | 11 11 11 | | | | | | 11 | | | | | | 11 11 11 11 11 11 |
| Glbbons, J. J. Glbbons La | ckawanna, | 20 | 20 | 20 20 20 20 20 20 | 8 | 20 | 8 | 20 | 20 20 20 20 20 20 20 20 20 20 20 20 20 2 | 0.5 | 80 | 93 | 20 | 240 |
| Mountain Lake Coal Co. | Lackawanna, | 21 | 19 | 17 | 10 | 12 | ro | | 19 | 19 | 25 | 19 | 20 | 186 |

TABLE 4.-Fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Instantly killed by a fall of a bell shaped roof rock. Smothered by falling into coal pockets. Outside. Killed by a fall of rock at face of chamber in Diamond vein. Killed by a fall of rock at face of chamber in Diamond vein. Killed by a fall of car and roof and killed by a premature blast. He was in the act of tamping the charge when the explosion took place. Killed by a fall of roof while restanding a discharged prop. Instantly killed by a fall of roof at face of chamber. Killed by a fall of bony at face of chamber in clark vein. Killed by a rall of bony at face of chamber in clark vein. Killed by a rall of roof at the face of chamber in the vapision of gas. Killed by a rall of roof at the face of chamber in Rock vein. Killed by a rall of roof at the face of chamber in Rock vein. Killed by a fall of roof at the face of chamber in Rock vein. Killed by a fall of roof at the face of chamber in Rock vein. Killed by a fall of roof at the face of chamber in Rock vein. Killed by a fall of roof at the face of chamber in graying in the breaker both boys farm into the coal pockets and were smoothered. Outside. Killed by a fall of rook in a pillar robbing place. | day. Willed by a fall of roof following a blast. |
|--|---|--|
| County | Lackawanna, | |
| Name of Mine | Mt. Pleasant Washery. Oxford, Y. Von Storch, Cayuga, Brisbin, Brisbin, Pine Brook, Prine Brook, Prine Brook, Brisbin, Rrisbin, Green Ridge Brisbin, Green Ridge Pennsylvan i a No. 5. | Cayuga, |
| empley to being Manney or selection of selection of selection of selection of selection of selection of selection or selection of selec | | M. 1 |
| Occupation | Laborer, 28 Laborer, 34 Carpenter, 34 Laborer, 31 Miner, 36 Miner, 36 Miner, 36 Com pany 46 Miner, 36 Com pany 46 Miner, 38 Com pany 46 Miner, 38 Com pany 46 Miner, 38 Slatepicker, 15 Slatepicker, 15 Slatepicker, 15 Slatepicker, 16 Laborer, 16 Laborer, 16 | American, Miner, 28 |
| Vationality | Welsh, Italian, American, American, American, Irish, Welsh, Polish, English, Elish, Elish, Clavonian, Irish, Irish, Clavonian, Irish, | American, |
| Name of Person | Willigm H. Parry, Angelo Tony, Phelix Reaker, Thomas Haggerty, Frank Sweeney, John Tomas, Patrick Hennigan, John Richards, Frederick Tremmers, John Richards, Anthony Harding, George Leanord John Klotzer, Joseph Colesky, Griffith Ellis, | 16 Thomas Boyd, |
| Date of accident | March 7 April 4 April 4 April 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 | June 10 |

| Killed by a fall of roof at the head of | Fatally injured by cars. Died July 14. Struck by a piece of rock at foot of main. | Killed by a runaway car on inside slope. Killed by a fall of rock while laboring | Instantly killed by a fall of rock at face | Killed by a fall of rockatin chamber in | Killed by a fall of rock at face of a | Fatally injured by falling under mov- | Fell under cars while trying to board a | Fatally injured while assisting in the | Work of erecting a drum. Walked into shaft and fell to bottom. Killed by fall of roof at face of cham- | Fatally injured by falling roof rock. | Killed by fall of rock in China vein. Killed by falling rock in New County | Killed by a fall of rock in Four Foot | Fatally injured by falling under mov- ing mine cars. Died in West Side Hos- nital | L'acces. |
|---|---|--|--|---|---------------------------------------|---------------------------------------|---|--|--|---------------------------------------|--|---------------------------------------|---|----------|
| | | | | | | | | гаскамаппа, | | | | | | |
| | | | | | | | - | Гаска | | | | | | |
| : | :: | ::: | : | : | : | : | , ed | : | :: | : | : : | : | - | |
| 1, | Ridge | l, | Storch | , g | ne, | Storch | ue slo | Park, | a, Park, | Brook. | Ridge Park | я, : | | |
| 20 S Oxford, | S. Green Ridge, | M. 1 1 Oxford, S Green Ridge, | Von Storch, | Cayuga, | Bellevue, | Von Storch, | Bellevue slope,. | Hyde Park, | Cayuga, Hyde Park, | Pine Brook, | West Ridge, Hyde Park, | 1 Cayuga, | Oxford, | |
| - | | - : | ıΩ | 67 | - | : | : :: :: :: | - co | M. 1 | 1 | | : | : :: :: | _ |
| | | - ! | - | 7*1 : | | : | : | ₩.: | - | | H H | | | |
| S | | | M. | M. | M. | υ <u>ά</u> | | M. | | M. | XX. | M. | | _ |
| - N | 7. 29 | 19 | | 39 | :: | 16 | 17 | 36 | | 30 | 28 | | 22 | _ |
| ř. : | an | | ř, : | : | : | y, . | : | F, : | | : : | | : | : | |
| abore | Driver, | Miner, | Laborer, | Miner, | Mfner, | Doorboy, | Driver, | Laborer, | Laborer, | Laborer, | Miner, | Miner, | Driver, | |
| 1 | | | ığ | | | | | | | ı | | | Ā. | - |
| an, | an, | lan, | an, | an, | an, | æm, | : | an, | | : | | : | an, | |
| neric | Scotch, | lsh, avon | Slavonian, . | American, | American, | American, | Polish, | American, | Polish, | Polish, | Polish, | Welsh, | neric | |
| · Aı | Sc | Ir. | | | - A | | | | | | | | AI | |
| | n, | - 26 | : | | | | | | itz, | | | s, | : | |
| ınell, | vidso is, . | egan | | : | gan, | : | : | | vitz, | Ka, | 118, | hom | an. | |
|)'Don | Morr | Donn | shall | elley | Morg | Reese | ina, | Reed, | utcar lack, | alath | rshur Cuff, | I. T | MIllus | |
| ge C | Benjamin Davidson, Scotch, Thomas Morris, American, | Michael Donnegan, Irish, Charles Vovoslicak, Slavonian, . | Fish Kinshalk, | George Pelley, | Edward Morgan, | Thomas Reese, | John Sabina | Edward Reed, | Joseph Butcavitz, | Frunk Kalatka, | Peter | William I. Thomas, | Dennis Sullivan, Americans | |
| George O'Donnell, American, Laborer, | Benj | Mich | Fish | Geor | Edw | Thon | John | Edw | Josel | Frun | Joe Petershunis, | | Denr | |
| 6 | 13 | នដ | 2 | 00 | 22 | 21 | 22 | 13 | 30 | 11 | 13.63 | 12 | 27 | |
| July | | | Aug. | | | Sept. | | Oct. | | Nov. | | Dec. | | |

December 19, James McAndrew, aged 69 Note.—October 28, Thomas McHale, aged 58 years, died from natural causes while at work in the Von Storch mine. years, died from natural causes while at work in the Mount Pleasant mine.

TABLE 5.-Non-fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Leg fractured by cars inside. Fager crushed by sticking hammer, blass, and hand out by flying coal from blass. Hand injured by falling roof rock. Front injured by talling roof rock. Nendider himsed by talling roof rock. Arm injured by talling roof rock. Arm injured by talling roof rock. Arm injured by talling roof. Leg fractured by talling roof rock. Foot crushed by falling roof rock. Shoulder bruised by mays an office. Foot crushed by falling roof rock. Shoulder bruised by rainer of agas, the bruised by rainer was a spilling in breaker. Ourside. Arm fractured by falling in breaker. |
|---------------------------------------|--|
| County | Lackawanna, |
| Name of Mine | Tripp slope. Bellevue slope. West Ridge. Green Ridge. Green Ridge. Von Storch. Von Storch. Bellevue shaft. Bellevue shaft. Von Storch. Bellevue shaft. Bellevue shaft. Bellevue shaft. Bellevue shaft. Bellevue shaft. Bellevue shaft. |
| Mante to lesituals | www. ww kwkwkwkk w kwkwkkk kww |
| . yge | 884 8888888 8 48888888 49 8 8 4484 |
| uojivilnao | Company man, Timberman, Miner, Miner, Lathorer, Lathorer, Carpetter, Carpetter, Carpetter, Miner, Mi |
| ghicatoineZ | American, Welsh, Welsh, Italian, Irish, Irish, American, Slavonian, Slavonian, Irish, |
| Name of Person | Elswouth Lavies, William Lowis, Joseph Potter. John McDermott, Plentas Golden, Michael Barrett, Partick Marrin, Partick Marrin, Partick Marrin, Partick Marrin, Partick Marrin, John Villiam Jones, John Marrin, John Thomas, Jo |
| inshbon to shal | March - 25558888 |

| Point of pick passed through left foot. Outside. Squeezed between a derailed car and the rib. Two lingers amputated between top rail of car and the roof. | These men were more or less seriously injured by the premature explosion of a blass. They were in the act of charge ing at the time. Collar bone fractured by mine cars fumping the track. Leg fractured, between the motor and min cars. Leg fractured, a collision of mine cars. | Streamy underson as response to searchent in a runaway accledent. Outside. Rubs fractured by falling roof rook. Two ribs fractured while playing tag. Outside. Nounds on sealp by falling rook. Wounds on sealp by falling rook. Arm injured by falling against a mine can. | Leg fractured by a Side and arm bilut Log fractured by Leg fractured by a Pack fractured by a Pack fractured by a Pack fractured by a Leg fractured by a lack fracture | Hip disposated by a laif of root force. Sightly injured by an explosion of gas workings. Sightly injured by a premature blast. Lee fractured by a premature blast. Lee fractured by cass outside. Outside. Fingers crushed in plulon wheel. Outside. Sightly burned on face by explosion of | Slightly burned on face and hands by an sylvision of gas. Compound facture of leg caused by a fall of post. Furned on hands and face by an explosion of gas. |
|--|---|--|--|---|--|
| | | | | | |
| Dickson, | Pennsylvania No. 5 shaft. 5 shaft. 5 shaft. 5 shaft. Manyille. Manyille. Hyde Park | Oxford, Oxford, Dickson, Marville, Hyde Park, Hyde Park, | Pennsylvania No. 5 shaft at the Sellevue shaft. Tripp slope. Oxford. Manwille, Green Ridge, 5 shaft. 5 shaft. | Von Storch, Oxford Oxford, Oxford, Oxford, Bellevue shaft, Bellevue shaft, Gynua, Gayuga, | West Ridge, Bellevue shaft, |
| | | WKW WK KK | WENNER K | K WWKKWKKK | K K K |
| 26 40 17 | | 38 38 15 15 18 18 | 45 28 28 28 28 28 28 28 28 | #6888555 #688 | 32 32 32 |
| Runner, Runner | Miner, Miner, Laborer, Laborer, Runner, Runner, Chiver, Driver, | Laborer, Teamster, Miner, Dumper, Laborer, Laborer, Footman, | Miner, Miner, Company man, Priver, Laborer, Laborer, Laborer, | Miner, Miner, Trackman, Driver, Miner, Lakoper, Slattepicker, Miner, | Laborer, 32 Laborer, 35 Laborer, 50 |
| can, | an, | | Polish, Welsh, Austrian, Italian, Lithuanian, Slavonian, Italian, | I ish. Irish. Irish. American. American. Polish. Irish. Irish. American. American. | |
| Charles Bowe, | Richard O'Hora, Patrick O'Hora, John C'Hora, pavid Davies, John W. Jones, David Griffiths, | Edward Cassw. W. E. Watrous, W. Donas Morgan, Herman Holberg, William Cresko, Patrick Skrucky. | 11. Michael Barnick, 11. Henry Thomas, 12. Frank (*r. 860). 13. Baldena Amedoo, 14. Marhew Knovalis, 12. John Behack, 13. Salvatore (*arlotta, | Lannes Callactier, Lannes Callactier, Miles Modiski Dayes Derry Manas Darits Marker Pitzinski Marker Pitzinski Anthony McDonnell (William Ketrick, | Lee Bengill, Joe Michillek, Angust Sorko, |
| | តិតិតិសិត្តិ | Apa H 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | Max. | in in the second | July |
| ~ | | ۲ . | Z | ñ | J. |

TABLE 5.- Continued

| | · . | | | £. | ~ | | | d) he | | | | | _ |
|---------------------------------------|---|---------------------------------------|---|---|---|--|---|---|--|--------------------------------------|--|--|--|
| Nature and Cause of Accident in Brief | Arm amputated by cars inside. Leg fractured by flying coal from blast. | Hands and face slightly burned by ex- | ploding gas. Slightly burned by an explosion of gas. Leg fractured while he was passing be- | tween mine cars. Fell from the bumper of a moving car | and broke his leg. Seriously injured on face and hands by | a premarure plast. Kicked by a mule—ribs bruised. Head seriously cut by falling roof rock. Hands and face slightly burned by gas | explosion. Thigh fractured by a fall of rock. Leg fractured by a haulage rope. Slightly injured by being squeezed against | breaker. Cutside. Leg fractured by cars inside while the Victim was escaping from a kicking | mule. Leg fractured by cars inside. | Hand injured by being caught between | chain and pulley. Cut on leg by sliding rock. Small bone in leg cracked in a collision | of railroad cars. Outside. Leg fractured by cars inside. Small bone in foot crushed by a fall of | rock. Leg fractured by a fall of roof rock, |
| County | V., | | | | | | Lackawanna, | | | | | | |
| Name of Mine | Dickson, Pennsylvania No. | oxford, | Oxford, | Oxford, | Cayuga, | Capouse, Capouse, Diamond shaft, | Manville, Mount Pleasant, Pennsyl v a n i a | No. 5. Pine Brook, | Pennsylvania No. | Hyde Park, | Hyde Park, | Oxford, Bulls Head, | Diamond shaft,. |
| Married or single | z z | M. | KK | σż | M. | Kiwiw | ¥ wiwi | vi | vi | vi | ZZ. | z,s | υż |
| 93V | 17 | 45 | 23 | 23 | . 35 | . 26 | . 21 | . 19 | . 17 | . 22 | . 23 | . 43 | . 53 |
| nollaquooO | Runner, | Miner, | Laborer, | Driver, | Miner, | Driver, Laborer, Miner, | Laborer, Runner, Laborer, | Driver, | Driver, | Laborer | Miner, | Driver, | Miner, |
| Vationality | Scotch, | Polish, | Lithuanian, Welsh, | Scotch, | Welsh, | Welsh, | Irish, Welsh, American, | American, | Irish, | Polish, | Irish, American, | Irish, | Irish, |
| Name of Person | Charles McClusky, | Mike Martoskink, | John Spudis,Roger Thomas, | Angus McDonald, | James Williams, | William Jones, William Monoghan, | Hugh Scullion, John Phillips, Hugh McLane, | John Fox, | Joseph Levey, | John Budslulka, | John McNulty, John Gray, | Michael Reilly, | Michael O'Brian, |
| Date of accident | July 10 | 25 | 27 Aug. 2 | 12 | 18 | 13 23 28 | Sept. 2 30 Oct. 2 | 10 | t- | 14 | 16 | 20 20 | 12. |

| Four ribs fractured by falling roof rock. Leg fractured by a fall of bony. Hand, severely, crushed in breaker ma- | Skull fractured by flying coal from a blast. | Wound on scalp and broken leg. Fall of roof. | Arm crushed by a runaway car on slope. | Knee cap injured by cars inside. | | - | Collar bone fractured by mine cars in- | side. | Back injured while unloading rock in- | Face injured by a premature blast of | Face fractured by cars inside | Leg fractured by cars inside. Eve injured while assisting to replace a | derailed car. |
|---|--|--|--|----------------------------------|------------------|---------------------|--|-------|---------------------------------------|--------------------------------------|-------------------------------|---|---------------|
| | | | | | , | Lackawanna , | | | | | | | |
| Bellevue shaft, Hyde Park, Diamond, | S. Diamond, | M. Hyde Park, | S. Pennsylvania No. 5 shaft. | West Ridge, | Oxford, | Fine Brook, | Manyille. | | Brisbin, | Tripp shaft, | Capouse, | Diamond shaft, | 5 shaft. |
| w X w | υż | ĭ. | υż | M. | į. | o io | á v. | í | υż | M. | vi vi | Ž'α. | |
| 25 19 | 29 | 36 | 17 | 69 | 250 | 020 | 43.4 | 7 | 21 | 45 | 119 | 122 | } |
| Miner, Miner, Offer, | Miner, | Miner, | Driver, | Doorman | Laborer, | Miner, 30 | Footman | | 1)river, 21 | Miner, 45 | Driver 19 | Company man, 71 | |
| Welsh, Miner, 32 Swedish, Miner, 32 Polish, Oiler, 19 | Welsh, Miner, 29 | Irish, Miner, | German, | English, | Italian, | Polish, | Welsh. | | Alec. Sisinstine, German, | Welsh, | English, | Welsh, | |
| | wells, | funick, | | | Jlyses Cavalari, | Simon Barnoskie, | homas Sumans | | sinstine, | vies, | William Shugg, | ms, | |
| Edward Davis, Albert Johnson Mike Sherela, | John Howells, | Peter Munick | 16 Joseph Stoker, | George Crubb, | Ulyses | Simon Bs | Thomas | | Alec. Sis | 14 Isaac Davies, | William Shu | Morris W | |
| 3000 | 4 | 00 | 16 | 8 | 8 | 27.6 | 25 | | C1 | 14 | 410 | 18 19 19 19 | |
| Oct. | | | | | | | | | Dec. | | | | |

CONDITION OF COLLIERIES

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

With but few exceptions the ventilation in the mines of this company is good. The roads and drainage are properly attended to. The conditions as to safety are good.

SCRANTON COAL COMPANY

Mines are well ventilated. Roads are good and properly drained.

DELAWARE AND HUDSON COMPANY

Ventilation good. Roads and drainage good.

PEOPLE'S COAL COMPANY

The ventilation has been re-established during the year, and will now compare favorably with any mine in the district. Roads are well drained.

PENNSYLVANIA COAL COMPANY

The ventilation is fair to good. Drainage good. Conditions as to safety are also good.

GREEN RIDGE COAL COMPANY

Ventilation fair to good. Drainage good.

A. D. AND F. M. SPENCER

Ventilation fair to good. Drainage good.

NAY AUG COAL COMPANY

Ventilation and drainage are good.

BULLS HEAD COAL COMPANY, J. J. GIBBONS, MOUNTAIN LAKE COAL COMPANY

The mines of these operators are ventilated by natural means. The employes work in scattered groups. Ample ventilation is provided under the circumstances.

IMPROVEMENTS

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Hyde Park Shaft. During the year the Hyde Park Breaker was rebuilt and equipped with mechanical pickers. There is also in course of erection a small annex to prepare the smaller sizes of coal.

There was installed in the mines one 80 H. P. electric hoist on Slope No. 2, New County Vein.

Cayuga.—A washery was built at this colliery to take care of all the refuse from the main breaker.

A tunnel was driven from the Clark vein to the Dunmore vein, a distance of 300 feet.

The cribbing in the hoisting shaft was replaced by concrete or expanding metal.

Brisbin.—A tunnel was driven from the Clark vein to the Dunmore. This tunnel is 600 feet long, and is located near the center of the property.

Diamond.—The foundations are built for a new breaker which is designed to handle twenty-five hundred tons of coal per day.

New engines are installed at the Diamond shaft. These are equipped with steam brakes, steam reverse, and steam clutch.

PEOPLE'S COAL COMPANY

During the year the People's Coal Company constructed a modern wash house upon the most improved methods. The building is of brick and stone, and is fire proof throughout, the floor being of concrete and so constructed that all water will drain to a given point. The size of building is 34x68 and it is built with two apartments, one being used for shower baths while the other apartment is for dressing and contains the steel lockers for their 600 employes. Each man is provided with a separate locker, the size of which is 14"x5' 8" high. These lockers are made with expanded metal backs and steam pipes are arranged about the different sections of lockers so that any clothes placed therein that may be damp are properly dried out in a short time. Each locker is provided with suitable clothes hooks and shelves and equipped with regular safe locks. The shower bath and lockers are duplicates of those in use in the Scranton Y. M. C. A. building recently built.

The building is heated with automatic valves in such a manner that an even temperature is at all times found within the building and the hot water used for showers is passed through an automatic heating and cooling process so that it is always at an even temperature.

A man is kept in the building to attend to the wants of the men and also to provide the necessaries used for bath purposes.

Mine Foremen's Examination

The annual examinations of candidates for certificates of qualification as mine foremen and assistant mine foremen were held May 8 and 9, in the City Hall, Scranton. The following persons were recommended for certificates:

Mine Foremen.—William W. Davis, Michael F. Madden, John W. Jones, Benjamin R. Evans, Jacob Jenkins, Anthony E. Mayer, Charles A. Russell, Tudor I. Aston, Martin Quinn, David Harrison, Patrick I. Conway, Henry Coles, Archie C. Young, J. E. Gotshall, George T. Kellam, Thomas George Thorburn.

Assistant Mine Foremen.—Robert Carson, Christie Connors, William Love, Michael Ford, William Heath, David Price, Thomas Malia, William H. Williams, Henry Haswell, E. R. Allen, Samuel L. Morgans, William J. Williams, William Hughes, Thomas Davies, W. H. Powell.



Fourth District

LACKAWANNA AND LUZERNE COUNTIES

Scranton, Pa., February 20, 1906.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of horewith presenting my report as Inspector of Mines for the Fourth Anthracite District, for the year ending December 31, 1905.

In addition to the tabulated statistics, I send a statement of the condition of the mines and the improvements made during the year.

Respectfully submitted,

D. T. WILLIAMS, Inspector.

SUMMARY OF STATISTICS

| NY have for all impies | 19 |
|--|-----------------|
| Number of collieries, | 42 |
| Number of mines, | |
| Number of mines in operation, | 42 |
| Number of tons of coal shipped to market, | 5.128,403 |
| Number of tons used at mines for steam and heat, | 222,472 |
| Number of tons sold to local trade and used by employes, | 56,696 |
| Number of tons produced,, | 5,407,571 |
| Number of persons employed inside of mines, | 8,716 |
| Number of persons employed outside, | 3,035 |
| Number of fatal accidents inside of mines, | 29 |
| Number of fatal accidents outside, | 7 |
| Number of non-fatal accidents inside of mines, | 58 |
| Number of non-fatal accidents outside, | 11 |
| Number of tons of coal produced per fatal accident | |
| inside, | 186,468 |
| Number of persons employed per fatal accident inside, | 301 |
| Number of persons employed per fatal accident outside. | 434 |
| Number of persons employed per non-fatal accident | |
| inside, | 150 |
| Number of persons employed per non-fatal accident | |
| outside, | 276 |
| Number of wives made widows, | 18 |
| Number of wives made widows, | 53 |
| Number of children orphaned, | 1 |
| Number of steam locomotives used inside of mines, | 18 |
| Number of steam locomotives used outside, | 20 |
| Number of electric motors used inside, | $\frac{20}{29}$ |
| Number of fans in use, | 3 |
| Number of furnaces in use, | |
| Number of gaseous mines in operation, | 23 |
| Number of non-gaseous mines in operation, | 19 |
| Number of new mines opened, | 2 |

TABLE A

PRODUCTION OF COAL

| Names of Operators | Tons |
|--|--|
| Delaware, Lackawanna and Western Railroad Company, Lehigh Valley Coal Company, Pennsylvania Coal Company, Jermyn and Company, Delaware and Hudson Company, Elliott, McClure and Company, Austin Coal Company, Gibbons Coal Company, Brookside Coal Company, Marian Coal Company, | 3,335,691 541,774 493,865 442,689 309,809 152,623 55,888 20,709 38,404 16,119 |
| Marian Coal Company, | |
| Production by Counties | |
| Lackawanna, | $5,279,729 \\ 127,842$ |
| Total, | 5,407,571 |

TABLE B.-Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

| ber | Number of employes outside | 187 | 276 |
|---------------------|---|---|-----------------------------------|
| per | Spirit seruployes inside the fatal accident | 169 161 161 213 135 83 83 219 52 | 150 |
| ber | Number of employes outside | 375 | 434 |
| 19d | Variables of employees inside | 269 269 270 270 219 219 | 301 |
| | səyolqmə lo rədmun latoT | 5.885 1,146 1,072 1,431 1,330 170 170 | 11.751 |
| | Animber of employees outside | 1,499 339 221 349 303 186 52 52 52 86 | 3,035 |
| | Mumber of employes inside | 4, 386 807 1, 082 1, 082 1118 37 | 8,716 |
| -uou | red beouted the los red red beautiful and some states | 128, 296 108, 355 123, 466 55, 336 25, 817 76, 311 55, 885 | 93, 234 |
| fatal | Teq beoutord [809 lo znoT ebizat frebiesz | 208, 481 180, 591 110, 672 77, 452 76, 311 | 186, 468 |
| idents | [Blo ^t l | 35 4 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 69 |
| Non-fatal Accidents | -sbistu() | 8 61 1 | 11 |
| Non-fa | 9bisal | 8 10 4 8 53 ct m | 28 |
| lents | fgioT | 2 4 648 | 36 |
| Fatal Accidents | • obistuO | 44 01 | 1- |
| Fata | łnside | \$ co 4401 | 29 |
| | Names of Operators | D., L. and W. R. R. Co., Lebigh Valley Coal Co., Pennsylvania Coal Co., Jermyn and Co., Delaware and Hudson Co. Elliott, McClure and Co., Austin Coal Co. | Totals and averages for district, |

TABLE C.-Classification of Fatal Accidents Inside and Outside of Mines

| | | | _ | | | | M | onth | 18 | | | | | |
|---|---------|----------|-------|---------|------------------|-----------------------|------|--------|-----------|---------|----------|----------|----------------------------------|---|
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Falls of coal, Calls of state, Calls of roof, Wine cars, Explosions of powder and dynamite, Premature blasts, Miscellaneous | 1 | 3 | | 1 | 1 1 2 1 | 1 2 1 2 1 | 2 | 1 | 1 | 1 1 | 1 | 2 | 2 1 15 5 3 2 1 | 6.90 3.45 51.72 17.24 10.34 6.90 3.45 |
| Totals, | · 2 | 3 | :::: | 1 == | 6 | 7 = | | 1 | 1 | 2 | 1== | 3 | 29 | 100. |
| Causes of Accidents Outside. 'ars, Machinery, discellaneous, | | | | | | | 1 | 1 | | 1 | 1 1 | | 1 2 4 | 14.29 28.57 57.1 |
| Totals, | | 1 | 1 | ! | | , | 1 | 1 | | 1 | 2 | | 7 | 100. |
| Grand totals inside and outside, | -2 | 4 | 1 | 1 | 6 | 7 | 3 | 2 | 1 | 3 | 3 | 3 | 36 | |

TABLE D.-Classification of Non-fatal Accidents Inside and Outside of Mines

| | | | | | | | N | Iontl | hs | | | | | |
|---|---------|----------|------------------------|---|-----|---|-------|--------|-----------------------|-----------|----------|-----------------------|--|--|
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Falls of coal, Falls of roof. Mine cars, Explosions of gas and dust, Explosions of powder and dynamite, Fremature blasts, Falling into shafts, By mules, Machinery, Miscellaneous, Totals, Causes of Accidents Outside Cars, Machinery, Miscellaneous, Totals. Carad totals inside and outside, | 2 | | 1 2 7 == 1 | 1 | 3 1 | 1 | 4 = 4 | | 3 1 1 1 1 6 = - 2 2 8 | 1 1 1 2 3 | 1 1 | 2 2 1 1 5 = | 5 20 13 2 3 5 1 5 5 1 5 6 1 4 11 69 | 8.62 34.49 22.42 3.45 5.17 8.62 1.72 5.17 1.72 8.62 100. |

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

| | | | | | | N | Iont | hs | | | | | |
|--|---------|----------------|----------------|-------|-------|------|------------|----------------|-----------|---------|----------------|----------|--------|
| Inside | January | February | March | April | Мау | June | July | August | September | October | November | December | Totals |
| Miners Miners' laborers, Drivers and runners, Doorboys and helpers, Company men All other employes, | 1 | | | | | 1 | ····· 1 | | 1 | 1 | | 2 1 | 18 |
| Totals, Outside | | | == | 1 | 6 | | 2 | | 1 === | | 1 | 3 | 2 |
| Engineers and firemen, Slatepickers (boys), All other employes, | - : | | | | | | 1 | 1 | | 1 | ···· | | |
| Totals,Grand totals inside and outside | | $-\frac{1}{4}$ | $-\frac{1}{1}$ | 1 | 6 | 7 | -1 -3 | $-\frac{1}{2}$ | 1 | 3 | $-\frac{2}{3}$ | 3 | 3 |

TABLE F.—Occupations of persons injured inside and outside of mines.

| | | | | | |] | Mont | hs | | | | , | |
|--|---------|-------------|----------------------|-------|-------------------|------|-------------|-------------|-----------|---------|----------|-----------------|-------------------------------|
| Inside ' , | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Miners, | | 2 1 3 | 4 1 1 1 | 3 | 3 2 2 1 | 1 | 1 1 1 | 1 1 1 1 1 1 | 2 2 1 1 | 1 | 1 | 1 2 2 | 22 11 12 3 5 2 |
| Totals, Outside Slatepickers (boys), All other employes, | | 7 1 | 7 1 | 4 | 8 == 1 1 | 6 | 4 | 4 == | === | 1 1 | == | 5 == 1 | 58 == 3 8 |
| Totals, | 2 | 1 8 | 1 8 | 4 | 10 | 6 | 4 | 4 | \$ | 3 | 6 | 6 | 69 |

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

| | 1 | | | | | N | 4ont | hs | | | | | |
|---|---------|----------|-------|-------|-----|-------|------|--------|-----------|---------|----------|----------|--------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| American, English, Welsh, Irish, German, Polish, Hungarian, Hallan, Austrian, | | | 1 | 1 | 4 | 1 3 2 | 2 | 1 | 1 | 1 | 1 2 | 1 2 | 19 |
| Totals, | 2 | 4 | 1 | 1 | 6 | 7 | 3 | 2 | 1 | 3 | 3 | 3 | 3 |

TABLE H .- Nationality of Persons Injured Inside and Outside of Mines

1

| | | | | | | 2 | Mont | hs | | | | | |
|---|---------|----------------------|-------|------------------|---------|------|------|--------|----------------------------|---------|--------------------------|----------|-------|
| | January | February | March | April | May | June | July | August | September | October | November | December | |
| American, English, Welsh, Irish, Jerman, Polish, Hungarian, Italian, Slavonlan, | 1 | 2 1 2 1 | 1 4 | 1 1 1 1 | 2 3 1 1 | 1 3 | 3 | 1 | 1 1 1 1 1 1 | 1 | 1 1 2 1 | 3 | 1 1 2 |
| Ithuanian, | 2 | 8 | 8 | 4 | 10 | 6 | 4 | 4 | 8 | 3 | 6 | 6 | _ |

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each person per minute

| Average number of cubic feet per minute provided for each person | 0.446.448.448.448.448.448.448.488.488.488 | 427 | 329 397 450 542 | 543 390 234 |
|--|---|----------------------------|---|---|
| Aumber of persons employed in- | 25.50 20.50 33.50 25.50 | 196 | 336 146 136 80 | 164 131 286 |
| Number of cubic feet per minute passing out at the outlet | 238, 206 179, 606 173, 606 173, 606 118, 334 118, 334 161, 265 209, 209 111, 336 | \$9,200 | 129,890 67,900 73,100 51,10 | 114,100 59,800 112,375 |
| alunim raq ais lo vilingup latell ni stiliqs and lis ni guitstiratio feel feel | 181, 299 97, 240 101, 781 114, 165 91, 752 125, 400 118, 537 106, 93 | \$3,800 | 110, 490 58, 000 61, 300 43, 400 | 89,040 51,150 66,905 |
| The Ties to feel of the self o | 172, 936 160, 100 101, 984 138, 250 88, 572 167, 331 165, 490 162, 072 | 87,300 57,850 | 125,890 62,500 68,800 47,700 | 101,160 57,400 79,320 |
| Kumber of splits of air currents. | 88 66 11 11 11 | : 00 ro | 1-4001 | t~63 @ |
| Power used | Steam, | | Steam, | Steam, |
| nsi to emak | Guibal, | Commission Management | Guibal | Guibal |
| Water gauge developed—in inches. | 11.25 | 1.6 | 9 | ا مانو |
| Number of revolutions per min- | 65 66 108 1125 1125 114 40 | | 121 653 57 | 28.62 |
| Depth of blades in feet | 0 % 4 4 4 4 4 6 0 0 | ਼ ਹ ਾ ਹਾ | 10:10:00 # | 10.4.16 |
| Teet in select to distil | ०० क स स स एट स ०० ०० ० | 4 4 | 10 10 0 T | 10 4,10 10 |
| Diameter of fan in feet | 44 44 44 54 55 55 55 55 55 55 55 55 55 55 | 16 | 118 120 120 112 | 81.8 |
| Method of ventilation | Fan, | | Fan, | Fan, Fan, Natural, |
| snoeseg-uou lo snoeseg | Gaseous, | Gaseous, Non-gas. | Gaseous, Gaseous, Gaseous, Non-gas. | Gaseous, Gaseous, Gaseous, Non-gas. |
| Kind of opening. | Shaft | Shaft Tunnel, | Shaft, Shaft, Shaft, | Shaft Slope, Shaft |
| Names of Operators and Mines | Delaware, Lackawanna and Western Railroad Co. Arehbald, Sloan, Central, Central, Continental, Pampton, Pyne, Holden, Taylor, | National, Meadow Brook, | Lehigh Valley Coal Co. William A. Lawrence shaft and drifts. Babylon. | Pennsylvania Coal Co. Forge No. 1 Forge No. 2 Forge, No. 2 |
| Names | Delaware, Westerr Archbald, Sloan, Central, Continental Hampton, Pyne, Dodge, Holden, | National, Meadow F | Lehigh William A Lawrence s Babylon, Babylon, | Old For |

| 266 536 285 554 | 271 262 230 219 29° 202 | 295 278 243 263 243 446 446 | 397 |
|--|---|--|---|
| 330 170 85 31 | 104 104 104 108 108 109 109 | 101 88.83.44.65 11 101 101 101 101 101 101 101 101 101 | 309 |
| 108, 300 36, 665 40, 125 18, 270 | 41,300 31,500 15,100 19,200 8,100 14,500 | 36, 300 13, 680 10, 860 17, 580 18, 100 6, 320 | 90,140 |
| 87.660 91,175 24,225 17,175 | 25, 100 27, 300 13, 860 17, 500 5, 500 | 29,880 10,560 10,560 11,050 12,220 12,450 4,900 | 85, 645 |
| 101,740 95,950 33,725 18,170 | 37,600 29,300 14,300 18,400 6,300 12,400 | 32, 450 12, 600 12, 600 12, 600 16, 550 16, 510 5, 000 | 86,895 |
| 10 00 cs H | 0000000 | | 7 4 |
| Steam, | Steam, | Steam, Steam, Steam, | Steam, |
| Guibal, Steam, | Guibal, | Guibal, Guibal, Guibal | Guibal, |
| T | r | 1.4 | .5 |
| 100 | 25 | 120 | 110 |
| 44 4 | رن ب | ro 4460 Fo | 4 & & |
| 4 4 4 5 | го | ro 4460 | 44 & & |
| 18 18 | 71 | 12 12 12 12 | 12 12 |
| Fan, Fan, Furnace, | Fan, Natural, Furnace, Furnace, Natural, Fan, | Fan, Natural, Natural, Fan, Fan, Natural, Natural, Natural, | Fan, |
| Gaseous, Gaseous, Gaseous, Non-gas. | Gaseous, Non-gas. Non-gas. Non-gas. Non-gas. | Gaseous, Non-gas. Non-gas. Gaseous, Non-gas. Non-gas. | Gaseous, Non-gas. |
| Shaft, Shaft, Shaft, | Shaft, Shaft, Drift, Drift, Slope, | Shaft, Drift, Drift, Drift, Slope, Slope, Drift, Drift, | Shaft, Tunnel, |
| Jermyn and Co. Jermyn No. 1. Jermyn No. 2. Jermyn No. 2. | Telaware and Hudson Co. Greenwood New No. 1, Greenwood Old No. 1, Greenwood No. 12, Greenwood No. 18, Greenwood No. 11, Greenwood No. 11, Greenwood No. 11, | Greenwood No. 2, Greenwood No. 6, Oak Hill. Spring Brook No. 1, Spring Brook No. 2, Spring Brook No. 2, Spring Brook No. 2, Spring Brook No. 2, Spring Brook No. 2, Slocum, | Elliott. McClure and Co. Sibley, Austin Coal Co. Gibbons Coal Co. |

*Ventilated by Meadow Brook Tunnel.

TABLE 1.-Operators, location of collieries, railroads, etc.

| Names of operators and Collicries | County | Nam | Name of General Superintendent | Postoffice | Name of Superintendent | Postoffice | Railroad to Mine |
|--|--------------------------|----------------|-----------------------------------|---------------|--|------------|----------------------------------|
| Delaware, Laukawanna and West- Archard Contral. Shem and Central. Controvated Hampton. Pyne. Public. France. F | Lackawanna, | بي | A. Phillips, | Seranton, | Thomas J. Williams, Thomas J. Williams, Thomas J. Williams, Thomas J. Williams, The mas J. Williams, E. J. Ewins, E. J. Ewins, E. J. Ewins, E. J. Ewins, | Seranten, | D., L. and W. |
| Washeries Hampton, Pane | Lackawanna, | ~ ~ | A. Phillips, | Scranton, | Fred C. Smith, Fred C. Smith, Fred C. Smith, | Scranton | D., L. and W. |
| Letter Carl Co. William A. Lawrence. | Lackawanna Lackawanna | 2, 2, 2, 3, | D. Warriner, | Wilkes-Barre, | W. D. Owens | Pittste n | Lehigh Valley. Lenigh Valley. |
| Pennsylvania Coal Co. | Lаска wаппа, | 11. | W. Inglis, | Scranton, | Joseph P. Jennings,. | Moosie, | Erie. |
| Jermyn Ne. I. Jermyn Ne. I. | Lackawanna | -; -; | J. Jermyn, | Seranton, | E. B. Jermyn, | Scranton | N. Y. S. and W. |
| Gree w. d N. s. 1 and 2. Spring Brook, | Lackawanna, | 55 55 | Rose, | Scranton | John Lovering, | Greenwood | Pelaware and Hudson. |
| Ellett, Me lure and Co. | Lackawanna, | R. 1 | W. Reese, | Rendham, | Henry W. Evans, . | Taylor, | D. L. and W. and Le |
| Austin Tunnel, | Laekawanna, | 14. | W. G. Robertson, | Seranton, | E. W. Davis, | Old Forge, | Lehigh Valley. |
| Gibb is Coal Co. | Lackawanna, | Je hn | John Glebons, | Scranton, | Michael Gibbons, | Scranton | D., L. and W. |
| Brockside Coal Co. Brockside Washery. | Lackawanna | M. I | F. Polphin, | Seranton, | | | N. Y., S. aad W. |
| Marian Coal Co. Marian Washery, | Lackawanna, | 14. | P. Boland, | Seranton, | F. J. Holleran, | Seranton, | D., L. and W. |

mined, number of days worked, number of persons employed, number killed and injured, quanand dynamite used, powder JO tity coal JO tons Number of ci TABLE

328 Number of horses and mules 074 680 070 295 267 997 488 529 024 899 Number of kegs of powder used F61400040000H Number of non-fatal accidents 401-01-00-0-Number of fatal accidents 768 701 614 378 792 671 425 738 544 631 Number of employes washeries) jou averages, d. (Totals including Number of days worked. 787 508 577 595 753 704 787 905 522 632 632 632 421, 326, 238, 181, 181, 498, 340, 307, Total production of coal in tons 22,182 512 288 248 348 413 577 577 577 577 Number of tons sold to loc sold to local 800 2,981 981 for steam and heat Number of tons used at collieries 403 (72 (72 433 054 445 134 664 392 615,068 Number of tons of coal shipped to market 223. 227. 227. 237. 339. 361. Lackawanna,. Lackawanna Lackawanna. County Dodge Boiler Plant, Central Boiler Plant, Western Railroad Operators and Collieries Delaware, Lackawanna and Archbald, Sloan and Central, Hampton Washery, Pyne Washery, Jo Continental Hampton, National, Meadow I Pyne, ... Dodge, .. Holden,

TABLE 2.—Continued

| Sylmany to abunde to dynamic hear the state of horses and mules selum bases and mules | | 30, (80 634 | 12, 150 60 6, 275 33 | 18,425 128 | 7.078 116 | 11,8c0 60 24,45c 31 | 36,270 91 | 35, 197 121 15, 540 37 | 50,737 148 | 5,401 43 | |
|---|---------------------|-------------|---|------------|----------------------|---|-----------|---|------------|--------------------------|---|
| Number of kegs of powder used | | 113,096 | 13, 679 8, 857 | 22,536 | 20,081 | 18, 284 | 27,490 | 20,318 | 26,945 | 7,879 | |
| Number of non-fatal accidents | | 34 | ca sa m | 20 | 4 | r-00 | 10 | 0.00 | 12 | 60 | - |
| Number of fatal accidents | | 8 | ে গ | 4 | | 00 00 | 9 | 0303 | 2 | 63 | i |
| seyolqme to tedmiN | LO. | 5,885 | 659 | 1,146 | 1,072 | S24 607 | 1, 131 | 927 | 1,306 | 624 | |
| step Tumber of days worked. Totals are averages, not including washerles) | | 213 | 234 | 219 | 195 | 888 | 123 | 175 | 167 | 151 | |
| snot at 1809 to neitenborg fisher | | 2,335,601 | 136,844 77,088 127,842 | 541,774 | 493,865 | 0114 | 442,689 | 234,686 | 309,809 | 152, 623 | |
| Number of tons sold to local trade and used by employes. | | 22,182 | 3,937 | 3,937 | 88 | 4,433 | 4,433 | | 3,670, | 2,019 | |
| Seinellies at seed at collieries for Jean and heat. | | 61, 781 | 30,520 14,198 | 44,718 | 14,280 | 26, 760 14, 668 | 41,435 | 25, 136 | 33,140 | 14,600 | |
| Number of tons of coal shipped to market. | | 3, 251, 728 | 302, 387 | 498,119 | 479,562 | 255,926 110,902 | 396,828 | [206,658 [66,911 | 272, 999 | 136,004 | |
| County. | Lackawanna,. | | Lackawanna, Lackawanna, Luzerne, | | Lackawanna,. | Lackawanna, | | Lackawanna,. | | Lackawanna,. | |
| Names of Operators and Collieries | entral Water shait, | Totals, | Lehigh Valley Coal Co. Lawrence, Babylen, | Totals, | Pennsylvania Gal Co. | Jermyn No. 1, Jermyn and Co. Jermyn No. 2. | Totals, | Delaware and Hudson Co. Greenwood Nos. 1 and 2. Spring Brook. | Totais, | Elliott, McClure and Co. | |

| Austin Coal Co. | Lackawanna | | 46.337 6.570 2,981 55,888 136 170 1 1,837 1,551 16 | 2,981 | 55,888 | 136 | 170 | : | 1 | 1,837 | 1 1,837 1,551 | 15 |
|--------------------------------|-----------------|---|--|--------|---|--------|--------|----|----|---------|---------------|-------|
| Austin Tunnel, | Tachara and and | | | | | | 11 | | | | | |
| Glbbons, Coal Co. | Lackawanna, | 3,458 1,000 16,251 20,709 230 63 965 164 21 | 3,458 1,000 16,251 20,709 250 | 16,251 | 20,709 | 250 | 63 | 63 | | 2962 | 965 164 21 | 21 |
| Brookside Washery. Lackawanna, | Lackawanna,. | | 22, 329 4, 475 | 009 | 600 28,404 201 23 | 301 | 39 1 | | | | 201 39 1 | 61 |
| Manian Washerv | Lackawanna,. | 15,039 | 480 | 600 | 600 16,119 48 21 | ∞ • | 21 | | | | 21 | |
| Grand totals. | | 5,128,403 222,472 | 222, 472 | 56,696 | 56,696 5,407.571 194 11,751 36 69 220,829 149,686 1.198 | 194 | 11,751 | 36 | 69 | 220,829 | 149,686 | 1,198 |
| | | | | | | | | | | | | |

TABLE 2.-Recapitulation

| 400000000001: | 1 |
|---|-------------|
| : ! | 1,19 |
| 30 080 18,425 1,675 36,250 50,737 1,551 1,640 1,640 | 149,686 |
| 20 24 5 22,836 118,425 4 5 22,836 118,425 4 10 27,400 118,220 118,220 118,220 118,230 | 220,829 |
| #10 # O 21 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 6.9 |
| 04 640 · · · | 36 |
| 5, 885 11, 176 11, 407 11, 300 170 624 63 63 83 | 11,751 |
| 213 219 195 195 167 151 151 136 250 301 48 | 194 |
| 3, 335, 691 541, 774 493, 865 492, 865 309, 809 152, 623 55, 888 98, 404 16, 113 | 5,407,571 |
| 22, 182 2, 937 2, 937 4, 433 3, 670 2, 981 16, 251 16, 251 600 | 56,696 |
| 61,711 14,718 14,718 14,718 14,718 13,740 14,600 1,000 | 25, 472 |
| 3, 251, 728 498, 119 498, 119 498, 828 236, 828 272, 999 136, (0)4 46, 337 46, 337 3, 458 50, 339 15, 039 | 5, 128, 403 |
| Lackawanna. Lack. and Luz. Lackawanna. | |
| D. L. and W. R. R. Co., Lehigh Valley Coal Co., Penigh Valley Coal Co., Jermyn and Co., Delaware and Hudson Co., Elliott, McClure and Co., Gibbons Coal Co., Marian Coal Co., Marian Coal Co. | Totals, |

TABLE 2.-PART 2

| ·s | Tossergines air compressor | 01 HH HH H H H H H |
|-------------------|--|--|
| 's | Number of electric dynamos | 0 H |
| reg ber | Quantity delivered to surface minute-gallons, | 14, 662 |
| nnte. | im repacity in gallons per min | 23, 036 4, 400 4, 400 4, 400 2, 500 2, 500 2, 500 1, 500 1 |
| Sult9: | Number of pumps deliver. | 2012 2022 2011 |
| | Total horse power. | 14, 455 2, 150 1, 043 1, 660 1, 660 60 270 60 21, 238 |
| Ils lo | Number of steam engines | 47.0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |
| tives | Electric. | ន |
| Locomotives | , itA | |
| ח | gresur | 24 674 1 67 |
| | Total noise power. | 13, 859 2, 100 1, 500 1, 500 1, 500 1, 150 300 200 200 200 200 200 200 200 200 20 |
| soilers | Horse power. | 13, 427 2, 1100 1, 954 1, 954 1, 500 1, 170 3, 175 200 200 200 201 201 201 201 201 201 201 |
| Number of Boilers | Tubular | 107- 8 - 11 8 00 00 00 11 |
| Numbe | Horse power. | 432 450 420 1140 |
| | .lsoitbailt | I 127 1- 11 4 |
| | County | Lackawanna, Lack. and Luz. Lackawanna, |
| | Names of Operators | D. L. and W. R. R. Co. Leftzin Valley Coal Co. Permyalvania Coal Co. Permya and Co. Delaware and Hudson Co. Belleutt. Mec'lure and Co. Gibbong Coal Co. Broaksedt Co. Gibbong Coal Co. Broaksedt Coal Co. Broaksedt Coal Co. |

TABLE 3.-Number of each class of employes inside and outside of mines

| | eletand total inside and outside | 768 6114 6125 6125 6125 645 645 | 5, f31 | 29669 | 194 | | 13 |
|---------|----------------------------------|---|--------------------|----------------------------------|----------------|------------|-------------------|
| | Total outside | 1557 1657 1686 1687 1687 1687 1687 1687 1687 168 | 1,269 | 4.444 | 174 | 1 88 | 16 |
| | All other employees | 36-6-886-444 869444400 | 535 | 66 68 68 68 68 68 68 | 136 | 16 | 42 |
| | Вооккееретs and clerks | ೲೲೲಀಀಀೲೲ ೲೲ | 21 | HH-: | c: | | |
| side | Slate pickers (men) | 444 110 101 111 48 20 20 10 | 172 | | c1 | | |
| Outside | Slate pickers (boys) | 61 4 70 70 50 50 70 70 90 90 4 70 4 50 70 70 70 70 70 70 70 70 70 70 70 70 70 | 389 | 01000 | = | | |
| | Engineers and firemen | 5-00181 × × 40 | 91 | 62 44 1 ¹⁰ 6 <u>1</u> | 17 | 101 | 24 |
| | Blacksmiths and carp nt ra | ∞ ⊕ ⊕ to ⊕ to ∞ t- | 63 | c1 | -31 | !! | |
| | Foremen | െ . — | 13 | | - | H 61 | 100 |
| | Superintendents | | | | | | |
| | obisni IstoT | 60 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 | 4,362 | တာဂလေ | 0.5 | | =p |
| | All other employes | 80 84 81 F 10 H 80 81 9 F 10 80 90 6 H 4 18 | 390 | | | | |
| | Company men | 200 200 200 200 200 200 200 200 200 200 | 515 | ∞ 410 | 17 | 7 | + |
| | Pumpmen | ରା ଉଦା ଶାଶା ଶାଶା କ | 72 | | | | |
| Inside | Door boys and helpers | 110000000000000000000000000000000000000 | 113 | | | | |
| In | ers and truncts | 4.00 to 10 to 2 to 2 | 523 | | : | | |
| | Miners' laborers | 210 142 182 183 183 183 183 183 183 183 183 183 183 | 1,494 | | | | |
| | Miners | 222 1190 1420 1720 180 1113 1130 | 1,471 | | | | |
| | Fire bosses and assistants | | 31 | | 1: | : : | 1 : # |
| | Assistant mine foremen | | 10 | | , : | | i ili |
| | Mine foremen | | 11 | | 00 | | 1 : |
| | County | Lackawanna, . | | Lackawanna, | | Lackawa na | |
| | Names of Operators and Col- | Delaware, Lackawanna and Western Railroad Co. Terbaid. Sloan and Central. Continental. Hampton. Pyne. Holder. Taylor. National. | Podge B iter Plant | | | | |

TABLE 3.—Continued

| | Grand total inside and outside | 20 | 5,885 | 659 259 228 | 1,146 | 1,072 | 178 | 1,431 | 927 | 1,300 |
|---------|---------------------------------------|----------------------|---------|---|---------|-----------------------|--|---------|--|---------|
| | Total outside | ro | 1,499 | 140 | 339 | 221 | 206 | 349 | 205 | 303 |
| | All other employes | ca | 269 | 111 | 207 | 126 | 59 | 106 | 132 | 177 |
| | Bookkeepers and clerks | : | 157 | 0101 | 4 | 01 | 63 63 | La | CI H | 200 |
| ide | Slate pickers (men) | : | 174 | 25 | 25 | LIS. | 58 | 89 | 6.5 | 22 |
| Outside | Slate pickers (hoys) | | 400 | 30 | 67 | 99 | 99 | 134 | 213 | 1-4 |
| | Engineers and firemen | 77 | 117 | 0000 | 13 | 16 | 120 | , E1 | 25. | 32 |
| | Blacksmiths and carpenters | : | 19 | 63 cr : | 21 | 155 | 00.10 | 120 | 1 5000 | 18 |
| | Рогетеп | : | 8 | : | 2 | - | | 61 | | C1 |
| | Superintendents | : | : | | | | 1 :: | 1 | | |
| | Potani IstoT | | 4,386 | 461 119 227 | 208 | 851 | 618 | 1,082 | 20.12 | 997 |
| | All other employes | | 390 | 00.00 | 11 | R | 133 | 25 | 187 | 25 |
| | Company men | | 318 | 23.23 | 115 | 35 | 35 | 88 | 15.0 | 40 |
| | ьпшышеп | | 27 | 4-4 | 6 | 4 | 10 4 | 6 | 4- | 10 |
| Inside | Door boys and helpers | | 113 | 00 4 6- | 19 | 40 | 16 | 35 | 96 | 33 |
| In | Drivers and runners | : | 523 | 8888 | 126 | 135 | 70 38 | 108 | 90 | 122 |
| | Miners' laborers | : | 1,494 | 115 30 55 | 200 | 528 | 217 | 374 | 283 | 401 |
| | Miners | : | 471 | 170 411 108 | 319 | 353 | 245 | 433 | 264 | 364 |
| | Fire bosses and assistants | : | 1 1 | | 00 | - | 1 1010 | 10 | es : | 00 |
| | Assistant mine foremen | | 15 | | C1 | | | : | - | -1 |
| | Mine foremen | | 17 | | 60 | 61 | 63 - | 00 | 63- | 200 |
| | County | Lackawanna, | | Lackawanna, Lackawanna, Luzerne, | | Lackawanna, | Lackawanna,. | | Lackawanna | |
| | Names of Operators and Col- lerles | Central Water shaft, | Totals, | Lehikh Valley Ceal Co. William A. Lawrence. Babylon. | Totals, | Pennsylvania Coal Co. | Jermyn and Co. Jermyn No. 1. Jermyn No. 2. | Totals, | Delaware and Hudson Co. Greenwood Nos. 1 and 2,] Spring Brook, | Totals, |

| 624 | 170 | 63 | 39 | ਜ ਜ | 11,751 |
|-----------------------------------|---------------------------------|-------------------|--------------------|-----------------|---------------|
| 186 | 52 | 26 | 68 | 21 | 3,035 |
| 10 | 19 | 6 | 24 | 77 | 1,436 |
| 61 | | 61 | | H | 46 |
| 20 | 13 2 | - | | : | 330 |
| 93 | 00 | 10 | 69 | co | 820 |
| 1 6 8 92 | 20 N | 1 1 2 | 3 | 67 | 223 |
| 9 | 4 | - i | co | : | 148 |
| 1 6 | 4 | 1 1 | | - | 63 |
| - | : | | | : | |
| 438 | 118 | 37 | | | 8,716 |
| | 2 | 1 1 | | | 479 |
| 89 | 11 | 1 | | _ : | 929 |
| 3 68 | - | | : | | 28 |
| 14 | | | | | 251 |
| 25 | 15 | | | - : | 1,090 |
| 14.1 | 88 | 16 16. 3 | | : | 2,916 1,090 |
| 150 | 49 | 16 | | - | 3,155 |
| 63 | | | | - : | 15 |
| 21 | : | | | - : | 11 |
| - | - | | | | SS |
| Lackawanna, 1 2 2 1 150 140 50 14 | Lackawanna, 1 49 | Lackawanna, | Lackawanna, | Lackawanna | |
| Elliott, McClure and Co. | Austin Coal Co. Austin tunnel, | Gibbons, Coal Co. | Brookside Coal Co. | Marian Coal Co. | Grand totals, |

TABLE 3.—Recapitulation

| | 5,885 | 1,072 | 1,431 | 624 | 170 | 63 | 33 | 12 | 11,751 |
|---|---|-----------------------|--|-----------------------------|------------------|-------------------|---------------------|------------------|---------|
| | 1,499 | 221 | 303 | 186 | 52 | 56 | 33 | 21 | 3,035 |
| | 697 207 | 971 | 177 | 57 | 13 | 0, | 24 | 14 | 1,436 |
| | 4.4 | 611 | o es | 2 | 2 | ¢1 | - | - | 46 |
| | 174 | 10 6 | 222 | 20 | 13 | - | : | : | 330 |
| | 400 | 26 | 134 | 92 | 00 | 10 | co | ಣ | 820 |
| - | 117 | 16 | 355 | 00 | ıo | 01 | t - | ¢1 | 25.53 |
| | 67 | EG. | 2 20 | 9 | 4 | - | ಣ | : | 148 |
| | 82 | | M C 1 | | | - | _ | , - | 55 |
| | 1 : [| <u>:</u> | : : | : | : | : | : | : | |
| | 4,386 | , | 1,082 | | | 37 | : | : | 8,716 |
| | 390 | ম | 3 13 | : | <u>r</u> ~ | : | : | : | 479 |
| | 318 | 10.0 | 40 | 89 | 11 | - | : | : | 929 |
| | 27 | 4.0 | 20 10 | က | ,1 | : | : | : | 80 |
| | 113 | 40 | 33 83 | 14 | : | : | : | : | 251 |
| | 523 | 135 | 128 | 28 | 15 | 00 | : | : | 1,080 |
| | 1,494 | 258 | 401 | 140 | 0.0 | 16 | : | : | 2,916 |
| | 1,471 | 25.53 | | | | | : | | 3, 155 |
| | 150 | | 3 00 | 63 | - | : | : | .: | 12 |
| | 10 01 | | :- | 63 | : | : | : | : | 15 |
| | # 00 | 010 | ~ co | - | - | - | : | : | 85 |
| | Lackawanna, | and Luzerne. | | Lackawanna,. | | - | | _ | |
| | D., L. and W. R. R. Co., Lehigh Valley Coal Co., | Pennsylvania Coal Co] | Jermyn and Co., Delaware and Hudson Co., | Elliott, McClure and Co., } | Austin Coal Co., | Gibbons Coal Co., | Brookside Coal Co., | Marian Coal Co., | Totals, |

TABLE 3.— PART 2

| | Names of Operators and Collberles | Delaware, Lackawanna and Western Rail- road Co. Archbald Sloan and Central, Confinental, Pamiton, Pyne, Dodge, Matlonal, National, | William A. Lehigh Valley Coal Co. Lackaw Lawrence, Lackaw and I. | | Jermyn No. 1. Jermyn and Co. Jermyn No. 2. Jerkawanna, | Greenwood Nos. 1 and 2 | Elliott, McClure and Co. Lackawanna | Austin tunnel, | Gibbons Coal Co. Laekawanna. |
|----------------------------------|-----------------------------------|--|---|-----------|--|--|-------------------------------------|----------------|------------------------------|
| | ounty | anna, . | Lackawanna, Lackaw a n n a and Luzerne. | i ii : | anna,. | | i | anna, | anna, |
| | January | 954535612 | 823 | 133 | 16.8 | 16 | | 10 | |
| | Transley | 20 110 110 20 20 110 110 | 11 | 10 | 16 16 | 22 | 16 | | 24 |
| Z | | 22 22 23 24 24 24 24 24 24 24 24 24 24 24 24 24 | 98 | 1 1 | 18 18 17 | 11 11 11 11 11 11 | | 15 15 | 23 |
| Number of Days Worked in Breaker | ylsy. | 28 28 28 28 28 28 28 28 28 28 28 28 28 2 | 22 . 24 | 15 22 | 8 21 7 19 | 155 155 155 155 155 155 155 155 155 155 | 9 | 12 15 | 19 |
| Days W | June | 222999823 5 | 21 | 81 | ដូន | 11.15 | 14 | 13 | 16 |
| orked ir | July | % - % 4 v - 1 v & v | 1715 | = | 515 | 192 | 13 | 133 | 15 |
| Breake | tauguA | 804848554 | 14 | 91 | 16 | 14 14 | 51 | oc | 15 |
| ı | September | ###################################### | 22 | 16 | 81 81 | 11 21 | 4 | = | 22 |
| | TedetaO | 91 8 8 5 8 4 11 0 12 | 16 ' 16 ' 1 | = | 02 119 | 13 | 14 | 11 11 | 600 |
| | 79строго | 22 22 22 23 24 25 25 25 25 25 25 25 25 25 25 25 25 25 | 18 81 | 16 | 23.83 | 12 13 13 | 118 | 6 | 23 |
| | Гесетрет | 558118851 | 1 21 | 12 | 212 | | 18 | = | 33 |
| | . AstoT | #81 84 84 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | # # # # # # # # # # # # # # # # # # # | 195 | 222 | 175 | 121 | 136 | 250 |

TABLE 4.-Fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Fatally injured by fall of top coal at face of chamber in Baltimore vein. Lied | same day. Fatally injured by fall of roof at face of chamber in Red Ash vein. | [These two men were opening a chander in the Rock veht, and had just commerced to work when a large stone fell upon them, killing them both in- | Killed by fall of roof at face of chamber in No. 3 Junmore vein. | Found dead on platform in break r with skull fractured, conners in the skull fractured. | a veloce of accuental usage by faiting. Outside Fatally injured by being struck in the stomach by a sheet iron chute, while | In the act of founding car. Ourside Killed by fall of roof at face of chamber in New County voir | Fatally injured by being squeezed between car and rib at foot of shaft. Died | May 8. Killed by fall of bony at face of cham- | Fatally injured by falling under loaded trip of cars on "tail rope line." Died | same day. Instantly killed by fall of roof at face of | Fatally burned by powder while inserting a cartridge into a hole with a scraper. Died June 2. |
|---------------------------------------|--|---|---|--|---|--|--|--|---|--|--|---|
| County | | | | | | Lackawanna, | | | | | | |
| Name of Mine | Jermyn No. 1, . | Spring Brook, . | Hampton, | Greenwood No. 1. | Taylor, | Taylor, | Dodge, | Taylor | Holden, | Jermyn No. 2,. | Taylor, | National, |
| Number of orphans | | 4 | H10 | | : | : | : | 61 | 4 | : | 4 | : |
| awobiw to 19dmuN | | - | | : | : | _ :_ | : | - | - | | 7 | |
| elgnis 70 beirreM | _ vi | Z. | ÄÄ. | vi | υi | σi | σi | M. | M. | M. | Ĭ. | υż |
| 93A | 47 | <u></u> | 21 83 | 21 | 15 | 28 | 38 | . 57 | 48 | . 21 | 30 | 32 |
| noseupation | Miner, | Laborer, | Miner, | Laburer, | Slatepicker, | Loader, | Laborer, | Oiler, | Miner, | Robe-rider, | Miner, | Miner, |
| Матіопай !у | Italian, | Austrian, | Polish | Polish, | American, | Hungarian, | Polish, | Polish, | Polish, | American, | Polish, | Italian, |
| Name of Person | Domonick Defatz, | John Suchostowski, | Michael Buckdonvitch,. Peter Schute, | John Kroupa, | Michael Henly, | George Coochy, | Stanley Fiakoffski, | Joseph Stepnick, | John Krevitus, | William Evans, | Adam Popson, | Tomassio Rossi, |
| Date of accident | Jan. 16 | 7.3 | Feb. 8 | x | ्री | March 14 | April 29 | May 5 | 10 | 13 | 17 | 56 |

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| ABLE 4C |

| Nature and Cause of Accident in Brief | Sufficiated by being covered with running | Fatally injured by fall of coal at face of aboundary in Clark voin | Fatally burned by an explosion of powder while in the act of removing a charge | from a hole. Died next day, instantly falled by fall of roof while rob- bins nillars. | Farally injured by being run over with leaded mine car Died June 26 | Fatally injured by fall of roof at face of chamber in Bock vein. Died June 20. | Fatally burned by explosion of powder. Died July 9. | Farally burned by explosion of powder. | Fatully injured by a fall of roof on main road. Died July 7. | Fatally injured by being squeezed between box cer and breaker timber. Outside. | Instantly killed by fall of roof at face of chamber in New County vein. | Fatally injured by fall of roof at face of chamber. Died same day, | Killed by falling off mule that he was | the harness and he was dragged a dis- tance of one-half mile. Outside. | Fatally injured by falling under moving mine cars. Died same day. | Fatally injured by falling under empty | Instantly killed by fall of roof while in the act of cleaning his road after firing a blast. |
|---------------------------------------|---|--|--|---|---|--|--|--|--|--|---|--|--|---|---|--|--|
| County | | | | | | | | | Lackawanna | | | | | | | | _ |
| Name of Mine | Continental | Pyne, | Spring Brook, . | Lawrence, | Jermyn No. 3, | Archbald, | Archbald, | Jermyn No. 2 | Sibley, | Taylor, | Sibley. | Greenwood | Lawrence, | | Sloam, | Sloam, | Dodge, |
| sw biw 10 wedmuX | · · · · · · · · · · · · · · · · · · · | M. 1 2 | | : :: :: | | M. 1 | M. 1 3 | M. 1 3 | | | M. 1 6 | · · · · · · · · · · · · · · · · · · · | : :: :: :: :: | | : : : : : | M 1 2 | M. 1 6 |
| nothsqueeO | Miner, 28 | Miner, 57 | Laborer, 22 | Laborer, 24 | Driver, 17 | Miner, 57 | Miner, 31 | Miner, 28 | Company- 32 | Laborer, 49 | Laborer, 35 | Miner, 47 | Driver, 16 | | Door-boy 17 | Company- 25 | Miner, 45 |
| Zationality | Polish, | German, | Italian, | P. lish, | P. lish, | Welsh, | Polish, | Italian, | Polish, | American, | Pollsh, | Polish, | English, | | Irish. | Welsh, | Pollsh, |
| Name of Person | Edward Czykowski, | August Fisher, | Abraham Mashona, | Frank Gevotsky, | Louis Andries, | Richard Nicholas, | George Meeshock, | Jeseph Cinpo, | Andrew Andruchuck | Samuel I. Smith, | Gusty Balvon, | John Miscavish, | John Bonnard, | | Jonnis O'Donald, | David Joseph, | John Kolojeski, |
| Inshious to stud | May 31 | June ; | | ĝ, | I * | 2 | 36 | 01 | July : | 93 | 98 | Aug. 17 | 51 | | Sept 26 | Oct. 4 | Ħ |

| Killed by being caught by governor belt of fan engine and whirled around the | fan shaft. Outside, Instantly killed by falling down breaker fower shaft to the surface of distance | of 98 feet. Outside. Killed by being drawn into boney 'rolls.' Coroner's jury rendered a verdict of ac- | cidental death. Outside. Fatally injured by fall of roof at face of | chamber in New County vein. Fatally injured by fall of roof at face of | chamber. Died same day. Instantly killed by a blast while in the | act of cleaning out hole with needle. Killed by fall of roof at face of chamber in Diamond vein. |
|---|---|--|---|---|---|--|
| | | ej | | - : : | : | |
| | | Lackawann | | Polish, Laborer, 37 M. 1 1 Babylon, Luzerne, . | 11 Joseph Vidcavich, Polish, Miner, 40 M. 1 3 Babylon, Luzerne, | Irish, Miner, 42 S Archbald, Lackawanna. |
| : | - :- | : | : | ¬ ; | : | |
| ÷ | 0. 1, | ٥. 2 | | : | : | |
| ald. | Z Z | Z | : | on, | on, | ald, |
| Archb | Polish, Headman, 40 S Jermyn No. 1, | American, Engineer, . 17 S Jermyn No. 2 | Polish, Miner, 42 M. 1 7 Dodge, | Babyl | Babyl | Archb |
| | : | : | 1- | | 623 | : |
| - | : | : | - | - | - | |
| υż | vá | υż | M. | M. | M. | υi |
| 20 | 40 | 17 | 42 | 37 | 40 | 62 |
| : | : | | : | : | : | : |
| rel. | man | neer | | rer. | ٠. | |
| Labor | Head | Engi | Mine | Labo | Mine | Mine |
| | : | : | : | : | : | : |
| can, | : | can, | : | : | : | : |
| meri | olish | meri | olish | olish | olish | ish, |
| - | Ъ. | 4 | Д. | . P | ъ. | . II |
| 18, | | | | | | |
| pher | , , | | Ki, | : | ich, | : |
| Ste | ovisl | art. | zinsl | ısper | deav | ran, |
| E. | el P | H s | 1 Pa | is Ca | 17 | Мо |
| James | Nov. 3 Michael Povish, | 28 Francis Hart, | 29 Martin Pazinski, | Thoms | Joseph | 12 James Moran, |
| 97 | 00 | 88 | 53 | t - | 11 | 12 |
| Oct. 26 James R. Stephens, American, . Laborer, 29 S Archbaid, | Nov. | | | Dec. 7 Thomas Casper, | | |

Note. June 8. Teny Sikoski, Polish, a visitor was fatally injured in the Big vein of the Archbald mine by a fall of roof.

TABLE 5.-Non-fatal accidents inside and outside of mines

| Nature and Cause of Accident in Prief | Leg fractured and injured internally by | han of foot. Ankle by fall of coal. Bone in foot fractured by being caught | between car and rib. Leg fractured by fall of roof. Left arm amputated below elbow by being caught in patent slatepicker. Out- | side. Ribs fractured by fall of top coal. Finger amputated by being caught between stretcher hook and side of mine | car. Severely injured by miners' needle passing | Lifrough his bowels. Light fractured by ears. Head and chest badly cut by fall of top | coul at tace of chamber. Scalp badly cut by coming in contact with a low piece of roof on the gangway | ut and ankle | Jaw bone fractured and face badly cut | hy being kicked by a mule. Ribs fractured by a fall of top coal at | Arm fractured by being struck with lever | used to place defailed car on track. Leg badly crushed by being run over | Arm fractured while in the act of pulling down some top coal. |
|---------------------------------------|---|--|--|--|--|---|--|-----------------|---------------------------------------|--|--|--|---|
| County | Lackawanna. | | | | Luzerne, | | | | | | | | |
| Name of Mine | Archbald,] | Greenwood No. 1, Jermyn No. 3, | Greenwood No. 1, Pyne, | Taylor, | Austin tunnel, | Sibley, | Babylon, | Hampton, | Sibley, | Holden, | National, | Continental, | Holden, |
| Married or singly | M. | S. W. | vi vi | io K | M. | K.S. | υż | M. | υ <u>΄</u> . | M. | M | M. | M. |
| 98.∆ | 43 | 40 | 855 | 16 | 557 | 23 | 16 | 97 | 17 | 346 | 42 | 09 | 61 |
| neihigueaO | Laborer, | Miner, | Driver, Slatepicker, | Laborer, | Miner, | Rope-rider, | Doorboy, | Miner, | Driver, | Miner, | Trackman, | Laborer, | Miner, |
| THISHOIDEN | Polish, | Irish, | Irish, | Slavonian, | Polish, | English, | Irish, | Irish, | Polish, | Irish, | Irish, | Polish, | Welsh, |
| Name of Person | Edward Lesinski, | John Cotter, | John Nee, David Lewis, | George Rowman, David J. Jenkins, | John Nowacsky, | Arthur Dent, David B. Davis, | Rey Egan, | Daniel Heffron, | Joseph Burke, | Anthony Burke, | Michael DeLacy, | John Szeyepanski, | Edward Williams, |
| Inshive to statt | Jan. 13 | 30 Feb. 1 | 21.0 | ė II | 21 | ដូច | March 1 | S | 11 | 5 | 20 | 22 | 27 |

| Arm fractured and back injured by fall of rof at face of chamber. Spine fractured by a fall of root. Leg fractured by being struck with endless rope. Hands and face burned by explosion of gas. Head and shoulder badly cut by flying call from blast. Injured by being squeezed between cars and gob. Wrist fractured by falling off loading plate. | Hibs fractured by falling from washery, a distance of 30 feet. Outside. Leg fractured by falling under empty ear. Leg fractured by fall of roof. Face, arms and body injured by dynamite blast. Hand amputated by falling under mine car. Leg fractured by fall of roof. Hand and face slightly burned by gas. Campound fracture of left leg by fall of | Lackawanna. Severely injured by premature blast. Arm fractured and body bruised by being squeezed between car and face of chamber. Face badiy burned by explosion of powder. Leg amputated by being crushed between two nine cars. Two teeth knocked out and mouth badly britised by being kicked with mule. Buth lace fractured by chicked with mule. | of chamber. Leg fractured by being caught with sprag in wheel of mine car. Frend out, hock and foot bruised by fall of roof on main road. These two men were working together robbing pillars, when a piece of roof fell upon them. The miner reveived a | compound institute of the rest, and the laborer received a severe crushing of the hand and arm. Legs hadly bruised by a trip of empty cars running away on slope. Frieger ampuritated while spragging a car. Severely injured by dynamite blast. Leg amputated by fall of roof at face of chamber. |
|---|---|---|---|---|
| | - | Spring Brook Greenwood No. 1, Greenwood No. 2, Jermyn No. 1, Hampton, | Old Forg Hamptor Lawrence | |
| 21 22 33 20 25 | | 25 12 25 71 82 82 W. S. | 8 8 8 8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 24 \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ |
| Miner, Miner, Company-ma Miner, Miner, Loader, | Helper, Miner, Driver, Miner, Laborer, | Miner, Laborer, Miner, Helper, . Driver, | Driver, Trackman, Miner, | Contractor, Driver, Miner, Laborr r, |
| Italian, Polish American, Welsh, Irish, Irish, American, American, | American, Polish, Polish, American, Italian, Polish, Hungarian, | Italian. Polish, Polish, Irish, American, | Italian,Italian, | American, American, Polish, Lithuanian, |
| Frank Condroski, Chester Reese, John Rist, Edward Cuff, Michael Murray, George Shannon, Matthew McCarthy | William Canterbury, John Mertino, Anthony Kerduski, Morris Evans, Baldo Sebastein, Vincent Gubersky, Frank Tomashia, | Victor Metiazzi, Alex Koupa, George Nemnito, Hugh Gildea, John Paley. Steve Gontas, | Angle Surano, Lewis Coslett, Carmel Stivell, Frank Stivell | an. |
| March 27 April 13 27 27 27 May 10 11 | 8 1 18 8 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | ne 6 6 11 11 11 11 11 11 11 11 11 11 11 11 | 1y 12 12 15 | |
| Mar May | | June | July | Aug |

TABLE 5.- Continued

| Nature and Cause of Accident in Brief | Face and arms burned by powder. Leg and arm fractured by fall of roof Setwered about the hips by being caught between empty car and electric motor. Contusion of the spine by fall of roof. Leg fractured by fall of roof. Leg fractured by fall of rook. Leg fractured by the being squeezed between railroad car and breaker timber. Head cut and teeth knocked out by being kicked with mule. Ing kicked with mule. Leg fractured by Jumping off railroad car. Thigh fractured by falling from breaker timbers. Thigh fractured by falling from dump car on dump. Outside. Leg fractured by falling moder mine car. Head and face cut by flying coal from it. Leg fractured by falling under mine car. Outside. Leg fractured by falling down shaft a distance of 45 feet. Spine injured by falling down shaft a distance of 45 feet. | Leg fractured by car jumping track and striking him on the leg. Wrist fractured by falling off platform at washery. |
|---------------------------------------|--|---|
| County | Lackawanna. | |
| Name of Mine | William A. Taylor, Pyne, Spring Brook, Dodge, Indge, Continental, National, Jermyn No. 1, Jermyn No. 2, Jermyn No. 1, Jermyn No. 2, Jermyn No. 1, Jermyn No. 1, Jermyn No. 1, | Greenwood No. 2, Pyne. |
| . Married or single | K KK W K W W W W KK W K W K | v. v. |
| YRc | | 17 |
| nolisquesO | Miner, Laborer, Company-ma Miner, Laborer, Loader, Driver, Loader, Driver, Laborer, Helper, Miner, Laborer, Caborer, Miner, Miner, Miner, Miner, Miner, | Driver, Laborer, |
| Vationality | Italian, Hungarian, Irish, Polish, Polish, Welsh, American, American, Polish, Polish, Polish, Polish, Talian, Slavonian, Polish, | Irish, |
| Name of Person | Thomas Nazerin, Tony kavish, Michael Gorman, Michael Longsha, George Keepa, George Hovich, William Jones, Martin Durkin, John Maher, John Glockwalla, Alex Zalacoski, Henry Singeler, Adam Kenner, John Zudya, Stephen Santige, Paul Perpock, Jacob Makuski, | John Smith, |
| trieblook to etsel | | 97 98 |
| | Sept. | Dec. |

| Leg fractured by being thrown under car while riding on bumper. Leg fractured by fall of roof. Leg ractured by fall of roof. Hands and face burned by powder while making a cartridge. |
|--|
| Leg whi Leg Leg Hand ma |
| Lackawanna, |
| |
| Old Forge No. 1. National. Archbald, Continental. |
| 33 M. S. |
| 35 27 33 |
| |
| Driver, 17 S. 0 Laborer, 35 S. N Laborer, 37 S. A Miner, 33 M. C |
| American, Driver, 17 S. Old Forge No. 1, 1, 1, 1, 1, 1, 1, 1, |
| s Legg, e Barboni, ey Bowen, Kenner, |
| eg, |
| Dec. 22 Jannes Legg, 26 Ercole Barbor 28 Stanley Bowe 27 John Kenner, |
| 25 25 25 25 25 |
| Dec |

Note.-January 14, Mike Slidinsky, Polish, a visitor, had a leg fractured by a fall of roof in the Holden mine.

FATAL ACCIDENTS

By Falls of Coal, Slate and Roof

During the year fifty per cent, of the fatal accidents was caused by falls of roof and coal, the greatest number of them occurring through carelessness on the part of the victims.

Domonick Defatz, Italian, miner, was fatally injured January 16, at the Jermyn No. 1 Colliery by a fall of top coal. He had fired a blast in the bottom coal, and went to the face to mine out a stump of coal without first examining the top coal. He died January 18.

John Suchostowski, Austrian, laborer, was fatally injured January 23, at the Spring-Brook Colliery by a fall of roof. The miner fired a blast which discharged a prop. Both men returned to work without restanding the prop, and while the victim was in the act of preparing a car of coal the roof fell. He died a few hours later.

Mike Buckdonvitch, Polish, miner, and Peter Schute, Polish, laborer, were instantly killed February 8, at the Hampton Colliery by a fall of roof. They commenced work without examining the condition of the roof, when a stone measuring 5 feet wide, 13 feet long,

and 15 inches thick, fell on them.

John Kroupa, Polish, laborer, was instantly killed February 8, at Greenwood No. 1 mine by a fall of bony at face of chamber in Dunmore No. 3 vein. The bony in this vein as a rule sticks to the main roof and has to be blasted down, but this piece had a smooth above which he could not detect.

Stanley Fiakoffski, Polish laborer, at Dodge mine was instantly killed at face of chamber in New County vein while working with his brother. He was sitting at face of chamber, when suddenly a

large portion of the roof fell upon him.

John Krovitus, Polish, miner, at Holden Colliery had fired a blast in the bottom coal Clark vein, which also broke the bony, and instead of examining his place he went to mine out a stump of coal, when the bony fell on him killing him instantly.

Adam Popson, Polish, miner, at Taylor Colliery, was instantly killed at face of chamber in New County vein. He was in the act

of restanding a prop when a portion of the roof fell on him.

August Fisher, German, miner, at Pyne Colliery, was fatally injured at face of chamber Clark vein. While talking with a miner from the adjoining chamber a piece of coal slid out from the face and fell on him. He died the same day.

Frank Govotsky, Polish, laborer at Lawrence drift, was working with his miner robbing pillars, and while attempting to stand a

prop a piece of sand stone fell killing Govotsky instantly.

Richard Nicholas, Welsh, miner, at the Archbald Colliery, was working four handed in a chamber in the Rock vein. He fired a blast that discharged a prop, and went back to the face of the chamber to find the result of the blast without first examining the roof. A portion fell upon him inflicting injuries from which he died next day. He had been notified about the condition of the roof.

Andrew Andruchuck, Polish, company man, at Sibley mines, and two other men were engaged taking down a bad piece of roof on the main road in the third Dunmore vein, and thinking that all that

was dangerous had been pulled down, they started to clean up, when a piece from the side fell on Andruchuck inflicting injuries from which he died July 7.

Gusty Balvon, Polish, laborer, at Sibley mines, was in the act of cleaning a place for a prop when a piece of roof fell on him, killing

him instantly.

John Miscavish, Polish, miner, at Greenwood No. 1 mines, was in the act of drilling a hole, when a piece of bony fell on him, inflicting

injuries from which he died two hours later.

John Kolojeski, Polish, miner, at Dodge Colliery, had fired two holes and was in the act of cleaning his road when a piece of roof fell on him. He had been notified by the Fire Boss and the miner in the adjoining chamber to pull the roof down.

Martin Pazinski, Polish, miner, at Dodge Colliery, was working four-handed in a chamber in the New County vein and fired a blast that discharged four props. He and his laborer went back to the face to learn the result, when a portion of the roof fell on Pazinski, inflicting injuries from which he died next day.

Thomas Casper, Polish, laborer, at Babylon shaft, was in the act of loading a car when a piece of bony fell upon him, inflicting injur-

ies from which he died in a few hours.

James Moran, Irish, miner, at Archbald mines, was driving a crosscut on right side of chamber and was entering the cross-cut to fire a blast when a large piece of roof fell on him killing him instantly.

By Explosions

Tomassio Rossi, Italian, miner, at the National mines, was ramming a cartridge into a hole with a scraper which was not perfectly straight, when the charge exploded burning him so severely that he died June 2.

George Meeshock, Polish, miner, at the Archbald mines, was about to fire a blast. He had partly placed the cartridge in the hole, and was in the act of making some tamping close by the powder that was only partly in the hole. He had a lighted lamp on his head and the lamp came in contact with the powder, severely burning him. He died July 9.

Joseph Cinpo, Italian, miner, at Jermyn No. 2 Colliery, was in the act of making a cartridge at his box, with his lighted lamp upon his head, when a spark fell into the powder igniting it with fatal re-

sults. He died the same day.

By Blasts

Abraham Mashona, Italian, laborer at the Spring Brook Colliery, with his miner, had charged a hole which missed fire two or three times. It is supposed they were withdrawing the charge when it exploded inflicting injuries upon Mashona that resulted in his death June 6.

Joseph Vidcavich, Polish, miner, at Babylon Mines, was blasting down some roof for grade. He had drilled a hole in the top rock and charged it with three sticks of dynamite and six inches of black powder and a cap. The black powder exploded but failed to explode the dynamite, and he took the needle to clean out the tamping, when he struck the cap which exploded the dynamite. The flying rock from the blast struck him on the head killing him instantly.

Miscellaneous, Inside

Edward Czykowski, Polish, miner, at the Continental mines, was repairing the manway in his chamber on the pitch. He cut some of the planks that were supporting the gob, and when the gob started to run it came on him and caught him against the corner of the cross cut. The weight of the gob probably suffocated him, as he had no marks upon his body.

By Cars, Inside

Joseph Stepnick, Polish, car oiler, at Taylor mines, was in the act of pushing a car on to the cage, when a trip of cars came behind him, and instead of getting out of the way on the side where there was sufficient room, he got on the narrow side and was squeezed between car and rib inflicting injuries from which he died May 8.

William Evans, American, rope rider, at Jermyn No. 2 colliery, was standing on front end of trip that was being hauled to the foot branch, and while unhooking the main rope from the trip, he slipped and fell under the car, receiving injuries from which he died the same day.

Louis Andries, Polish, driver, at Jermyn No. 3 mines, was taking a trip of empty cars to a passing branch when he was caught by a runaway car receiving injuries from which he died June 26.

Dennis O'Donald, Irish, doorboy, at the Sloan mines, was riding on front end of loaded trip of cars on main road. He was told by the runner to keep off the cars and to go to his door, but he walked out some distance on the gangway and waited for the trip and jumped on front end. When the trip jerked at the foot of a small run, he was thrown underneath receiving injuries from which he died same day.

David Joseph. Welsh, company-man, at the Sloan mines, was acting as a brakeman on the electric motor. They were switching a trip of empty cars on to a passing branch, and he was standing on the front end of the trip, when his head came in contact with the roof and he was thrown under the first car, the wheels passing over his body inflicting injuries from which he died October 25.

By Cars, Outside

Samuel I. Smith, American, outside laborer, at Taylor breaker, was standing on the track under the breaker unloading a car of condemned coal as the trainmen were pushing in some empty cars. They bumped a box car that was standing on the branch and it came down to where Smith was standing, and caught him between the breaker timbers, inflicting injuries from which he died the same day.

Machinery, Outside

James R. Stephens, American, outside laborer, at Archbald mines, was in the act of oiling and cleaning the fan engine when in some unexplainable manner his clothing was caught in the fan shaft with

the governor belt wound around him. The shaft was making 60 revolutions a minute, and with every revolution his head would come in contact with the concrete floor. When found he was dead. Coroner's jury rendered a verdict of accidental death.

Francis Hart, American, engineer, at Jermyn No. 2 breaker, was caught and drawn into the bony "rolls" receiving injuries from which he died same day. After repairing a break down on the engine and starting the machinery he went to start some coal into the "rolls" and in some manner must have raised the cover on the "rolls" and slipped in. He was caught by the left leg and drawn in above the hips. Coroner's jury rendered a verdict of accidental death.

Miscellaneous, Outside

Michael Henly, American, slate-picker, at Taylor breaker, was found dead on a platform in the breaker. I made a close examination of the surroundings, but found no machinery that the boy could get into. The nearest to him was a conveyor line about 9 feet above the platform, and it may be that the boy climbed up to this line and was struck or fell backwards and fractured his skull. Coroner's jury rendered a verdict of accidental death.

George Coochy, Hungarian, loader, at Taylor breaker, was in the act of taking out a sheet iron chute that he was using to convey the coal to the end of the box car, and while doing so, a car on the adjoining track which was being pushed into place for unloading T rails by a locomotive, struck the end of the projecting chute causing the other end to strike Coochy in the stomach inflicting injuries from which he died March 16.

John Bonnard, English, outside driver, at Lawrence breaker, got on a mule to ride to the barn, near the Babylon mines, about one half mile from the breaker, and when the mule reached the barn Bonnard was found by the barn-boss dragging on the ground dead with his foot fast in the trace chain. He had been clubbing the animal until it became uncontrollable, and in his effort to get off his foot was caught in the trace chain.

Michael Povish, Polish, headman, at Jermyn No. 1 breaker, was in the act of throwing back the door on the empty car after it was placed on the cage, when the signal was given to the engineer to hoist. He was drawn into the tower shaft and fell to the surface a distance of 98 feet. He was killed insantly.

CONDITION OF COLLIERIES

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Archibald Colliery.—The ventilation and drainage and general condition as to safety are good.

Sloan Colliery.—General condition as to safety good. Central Colliery.—Ventilation and drainage good.

Continental Colliery.—Ventilation and drainage in fair condition.

Hampton Colliery.—Ventilation and drainage fair.
Pyne Colliery.—General condition as to safety good.

Dodge Colliery.—Ventilation and drainage fair. Holden Colliery.—Ventilation fair; drainage good.

Taylor Colliery.—The ventilation has been greatly improved during the year but there is still room for improvement; drainage good.

National Shaft.—General condition fair.

LEHIGH VALLEY COAL COMPANY

William A. Colliery.—Ventilation and drainage fair.

Lawrence Colliery.—General condition fair. The principal work done at this mine is robbing pillars.

Babylon Colliery.—Condition good. The principal work is robbing pillars.

PENNSYLVANIA COAL COMPANY

Old Forge No. 1.—Ventilation fair, drainage good.

Old Forge Slope.—General condition good.

Old Forge No. 2.—General condition as to safety fair.

JERMYN AND COMPANY

Jermyn No. 1.—Ventilation fair, drainage good. Jermyn No. 2.—Ventilation fair, drainage good. Jermyn No. 3.—Ventilation and drainage fair.

DELAWARE AND HUDSON COMPANY.

Greenwood No. 1.—General condition fair.

Greenwood No. 2.—General condition fair.

Spring Brook Colliery.—Ventilation and drainage good.

ELLIOTT, McCLURE AND COMPANY

Sibley Colliery.—Ventilation and drainage fair.

AUSTIN COAL COMPANY

Austin Tunnel.—General condition fair.

GIBBONS COAL COMPANY

Gibbons Mine.—Ventilation fair; drainage good.

IMPROVEMENTS

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Central Water Shaft.—800 horse power electric hoist; buckets 6 feet in diameter and 20 feet in depth; capacity of buckets 4000 gallons. This electric hoist was put in operation August 14, and the hoist regulated by hand. The next day the machinery was put to work automatically. The starting, stopping, dumping, reversing and over-hoist cut-off arrangements all worked successfully. Depth of shaft 518 feet. By this method of concentrating the drainage above the Clark vein level from Pyne, Archbald, Continental, Hyde Park, Hampton, Central and Sloan at this point, the steam pumps at these different collieries will be done away with. They are also making preparations to install at the foot of the shaft in the Clark vein, an 800 horse power 6 stage electric pump, capacity 5000 gallons per minute, as a substitute to the bucket water hoist in case of emergency.

Pyne Colliery.—A second opening rock tunnel was driven from the New County vein to the Big vein, size 7 feet x 12 feet, length 200 feet, pitch 18 degrees. Installed one 200 K. W. electric rotary converter for mine haulage purposes. Installed and working two 6½ ton motors without reels, and five 6½ ton motors with reels. Installed new water fire lines for protection outside to breaker and out-buildings. Installed 2½ batteries or 10 boilers of the Babcock and Wilcox water tube type, 1515 horse power. Brick building, boilers brick lined, iron trusses for roof, and equipped with Parson's steam blower. Cylinder boilers and old boiler house removed. Hoisting engines were remodeled and removed further away from breaker onto a new foundation and in a new brick building.

Archbald Colliery.—Installed two batteries or 8 boilers of the Babcock and Wilcox water tube type, 1212 horse power. Brick buildings, boilers brick lined, iron trusses for roof, and equipped with Parson's steam blower. Old cylinder boilers removed and old boiler house torn down and removed. Installed fire lines and plugs on the outside for fire protection. Rock tunnel driven from Rock to Diamond vein, size 7 feet x 12 feet, and 75 feet long. Rock plane tunnel from New

County vein to Big vein, size 7 feet x 14 feet, length 220 feet.

Continental Colliery.—Second opening rock tunnel driven from Dunmore No. 2 vein to Clark vein, size 7 feet x 12 feet, length 125 feet

Sloan and Central Collieries.—Second opening rock tunnel driven from Clark vein to New County vein, 7 feet x 12 feet, length 150 feet. Also to do away with hoisting coal at the Central main shaft to the surface, and hauling over with steam locomotive to Sloan breaker; the coal is now transported by electric motor from Central to Sloan under ground, in the Clark vein. Six additional reel motors were installed at this mine during the year.

Dodge Colliery.—A new brick hoisting engine house, size 36x36; and a new pair of direct acting engines, size 22 inches x 36 inches. A new washery annex, size 24 feet x 60 feet for small sizes, capacity

400 tons per day.

Taylor Colliery.—Installed 4 new tubular boilers, 150 horse power each, also brick boiler house for the same, size 53 feet x 41 feet. Installed pair of breaker engines 12x30 inches in a new brick building 36 feet away from breaker. Rock tunnel driven from New County vein to Clark vein, size 7x14x184 feet, also new air shaft for ventilation from New County vein to Clark vein to ventilate above tunnel, size 8x10x23 feet.

LEHIGH VALLEY COAL COMPANY

William A. Colliery.—A new boiler plant consisting of seven batteries, with 2100 horse power was completed. A steam line was extended from this plant to the Lawrence and Bablyon mines, and the steam for the three collieries is now furnished from this plant. New cribbing was placed in the main shaft. One pair of 12x22 inch hoisting engines was placed in the Clark vein to replace the old pair which was too small for the work. One 1000 and one 600 gallon pump was placed in the Red Ash vein for silting.

Lawrence Colliery.—A William's crusher was installed to dispose

of refuse from breaker, which is run in the mine.

Babylon Shaft.—The old column pipe in the shaft was replaced with new pipe.

PENNSYLVANIA COAL COMPANY

A new boiler house built of brick, 170 feet long and 51 feet wide, with steel roof trusses and corrugated roofing, has taken the place of the old wooden fire room. The new boiler house is equipped new throughout. Three batteries of Stirling boilers giving 1704 horse power has replaced three batteries of B, and W, boilers of 900 horse power. Two feed pumps 12x8x12 are used to furnish water to the boilers. Two twelve feet fans driven by 10x16 engines together with stacks 81 feet high, 48 inches diameter, furnish the draught. The feed water is heated by a 3000 horse power Cochrane water heater with exhaust steam, before being delivered to the boilers. The draught is conducted in an underground tunnel and can be regulated at each half battery to suit conditions. The grates used are the leaf shaking type, and the ashes are dropped directly into hoppers, are moistened, drawn directly into cars, and are hauled through a tunnel under the boilers. This is a very decided improvement over the old style, as no ashes at all are brought through the fire doors, enabling the fire room to be kept exceedingly clean. The fuel is conveyed by a conveyer line 600 feet long into bins which are directly in front of the boilers, and a week's supply can be kept on hand. The piping consists as far as possible of bends, making the connections very simple and few. An 18 inch extra heavy pipe is used as a header and all steam is drawn from it. In connection with the boiler house there has been built a brick wash-house 28x14 feet divided into three compartments, and fitted with baths and lockers. Two water tanks, holding each 50,000 gallons, have been erected as a reserve for the boilers in case the water should be shut off the mains. An inclined plane has been completed to haul supplies from the railroad tracks to the top of the hill, where they can be taken to the mines by the locomotives. A new locomotive house 40x36 feet to hold three locomotives, with a wood frame and covered with corrugated iron, has been erected at Old Forge No. 1 shaft to replace the old engine house which was at the foot of the breaker plane. A new locomotive weighing 20 tons has been added to the equipment. In the breaker a few things have been added. A rock crusher, running 1000 revolutions per minute, is installed. This will crush all the breaker rock, which when crushed will be slushed into the old workings to protect the pillars. A supply house divided into compartments for lime, hay, feed and general supplies is nearing completion. This building built of brick is 150 feet long by 25 feet wide. An oil house, a fire proof building 17 feet x 27 feet, fitted with Bowser self measuring tanks is about finished. Electric haulage is being installed at Old Forge. The power-house, a brick building 44 feet x 95 feet with steel roof trusses, is erected. The pole lines are erected on the outside. On the inside, the tracks are being bonded, the hangers placed in the roof, and the wire ready to string. Eleven 7 ton and one 13 ton motor will be put into service. Two new openings have been made on the West Mountains, one to the Marcy and one to the Clark veins. An air shaft is being sunk to these veins, all power to be used at these openings will be electricity. These new openings are connected with the breaker by a new tram road nearly a mile in length.

JERMYN AND COMPANY

Jermyn No. 1 Colliery.—The main shaft was sunk from No. 2 Dunmore to No. 3 Dunmore, a distance of 55 feet. A "Tail Rope" engine was installed outside to haul coal up slope to outside from top vein and east middle vein. No. 3 or Nickle Plate shaft was recribbed.

Jermyn No. 2 Colliery.—A slope was driven from Marcy vein to Clark vein, a distance of 300 feet on a 12 degree pitch. A rock plane tunnel was driven from Dunmore No. 2 vein to Clark vein, a distance of 328 feet on a pitch of 17 degrees.

DELAWARE AND HUDSON COMPANY

Greenwood Colliery.—No. 2 slope in Checker vein extended 430 feet for development. New drift to New County vein opened, and surface railway constructed from mouth of same to head of No. 2 slope. Bore hole 256 feet deep put down for compressed air.

ELLIOTT, McCLURE AND COMPANY

Sibley Mine.—The shaft has been sunk 115 feet from the Clark vein cutting No. 2 and No. 3 Dunmore veins and are now at work opening No. 3, the No. 2 being developed from an inside slope. Rope haulage has been installed in the bottom split of the Clark and in No. 2 Dunmore, and are at present installing a rope haulage in the New County vein. The mountain plane in the Clark vein has been extended 750 feet. A new stable has been built in the Clark vein. The breaker has been equipped with additional Emory slate pickers; a new 50 ton Barker track scale has been placed owing to the increased capacity of railroad cars.



Fifth District

LUZERNE COUNTY

Pittston, Pa., March 7, 1906.

Hon, James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of herewith transmitting to you my annual report as Inspector of Mines for the Fifth Anthracite District for the year ending December 31, 1905.

The report gives the statistical information as required by law; also a brief description of the fatal and non-fatal accidents that occurred during the year, with other useful information.

Respectfully submitted,

H. McDONALD, Inspector.

SUMMARY OF STATISTICS

| Number of collieries, | 21 |
|--|-----------|
| Number of mines, | 44 |
| Number of mines in operation, | 43 |
| Number of tons of coal shipped to market, | 4,823,425 |
| Number of tons used at mines for steam and heat, | 353,787 |
| Number of tons sold to local trade and used by employes, | 47,989 |
| Number of tons produced, | 5,225,201 |
| Number of persons employed inside of mines, | 9,616 |
| Number of persons employed outside | 3,435 |
| Number of fatal accidents inside of mines, | 54 |
| Number of fatal accidents outside, | 7 |
| Number of non-fatal accidents inside of mines, | 83 |
| Number of non-fatal accidents outside, | 10 |
| Number of tons of coal produced per fatal accident inside, | 96,763 |
| Number of persons employed per fatal accident inside, | 178 |
| Number of persons employed per fatal accident outside, | 491 |
| Number of persons employed per non-fatal accident in- | |
| side, | 116 |
| Number of persons employed per non-fatal accident out- | |
| side, | 343 |
| Number of wives made widows, | 35 |
| Number of children orphaned, | 81 |
| Number of steam locomotives used outside, | 30 |
| Number of compressed air locomotives used inside, | 7 |
| Number of electric motors used inside, | 12 |
| Number of fans in use, | 54 |
| Number of gaseous mines in operation, | 27 |
| Number of non-gaseous mines in operation, | 16 |
| | |

TABLE A

PRODUCTION OF COAL

| Names of Operators | Tons |
|---------------------------------|------------|
| Pennsylvania Coal Company, | 1,603,996 |
| Lehigh Valley Coal Company, | 1,766,033 |
| Hillside Coal and Iron Company, | 695,400 |
| Delaware and Hudson Company, | 512,007 |
| Hudson Coal Company, | 341,100 |
| Traders' Coal Company, | 137,984 |
| Avoca Coal Company, Limited, | 94.859 |
| Clarence Coal Company, | $73,\!822$ |
| Total, | 5,225,201 |
| Production by Counties | |
| Luzerne, | 5,225,201 |

TABLE B.-Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

| | Number of employes ou per non-fatal accident | 1887 | 62 |
|---------------------|--|---|---|
| əpisu | Number of employes i | 126 688 1199 240 141 | 116 |
| əbist | Number of employes on per fatal accident | 538 439 163 163 163 | ======================================= |
| əbisn | i səyolqmə to rədmuX tradioəs latat rəq | 10.000000000000000000000000000000000000 | 7.6 |
| Sə | Total number to redund | 1, 540 1, 540 1, 540 1, 540 3, 540 3, 540 | 13,051 |
| əbisi | Number of employes ou | 25 S S S S S S S S S S S S S S S S S S S | |
| əp | Number of employes insi | 1, 0.63 1, 0.6 | £ 53 |
| per de | beoulord Isos to snot isni tnebises Istal-non | 21, 742 25, 759 27, 267 28, 912 36, 830 | E 934 |
| per | Tons of coal produced fatal a voident maide. | | 116°911 |
| idents | TetoT | 2000 Elic 200 | 3 8 |
| tal Acc | 9histuO | C1 14 14 11 21 | 10 |
| Non-fatal Accidents | obianI | | - 92 |
| | Total | 96+me | 61 8 |
| Fatal Accidents | əbisin() | 0101 01 | 1- |
| Fata | •biznI | 514 7000 | 1 16 |
| | Names of Operators | Penestvana Coal Co., Librer Valley Coal Co., Hilberte Coal and Iron Co., Hilberte Coal and Iron Co., Heaver and Hadson Co., Product at Co., Trades Coal Co., Limited | Totals and averages for district, |

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

| | _ === | === | | === | | | === | -== | == | | | ==: | _== | |
|--|---------|----------|-------|-------|-----|--------|------|----------------------|--------------------------------|-----------------------------|--------------------|--|------------------|--|
| | | | | | | - | M | onth | S | | | | | |
| : Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Falls of coal, Falls of roof, Mine cars, Explesions of gas and dust, Explosions of powder and dynamite, Premature blasts, Falling into shafts, Ey mules, Totals, | 3 | 2 | 1 | | | | | 2 1 2 1 | 5 1 1 7 == | 3 1 1 =5 == | 2 1 | 1 4 1 1 1 1 - - - - | 5 29 5 5 1 6 2 1 | 9.26 53.70 9.25 9.26 1.85 11.11 3.71 1.85 |
| Miscellaneous, | 1 | | | | | | | | | | | | 2 3 1 1 1 | 28.57 42.86 14.29 14.28 |
| Totals, | 6 | 3 | 2 | 3 | 4 | 2 S | 1 | -6 | - <u>1</u> 8 | 5 | 4 | 8 | | 100 |

TABLE D.-Classification of Non-fatal Accidents Inside and Outside of Mines

| | | | | | | | М | === onth | s | | ==- | ==: | === | |
|--|-------------------------------------|----------------------|---|--------------------------------|----------------------------------|------------------------------|---------------------------|-------------|------------------------------|--|-----------|------------------------|---|---|
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Falls of coal, Falls of roof, Mine cars, Explosions of gas and dust, Explosions of powder and dynamite, Premature blasts, By mules, Miscellaneous, Totals, | 2 3 2 1 8 == | 1 3 1 5 | 2 1 5 2 2 1 -13 | 3 3 1 1 1 9 | 1 3 1 5 | 1 4 2 1 | 1 1 1 == | 1 3 | 1 2 1 1 | 1 1 1 1 1 - 13 == | 1 | 1 2 4 === | 3 18 29 13 2 8 2 8 2 8 | 3.61 21.69 31.94 15.66 2.41 9.64 2.11 9.64 |
| Causes of Accidents Outside Cars, Machinery. Miscellaneous, Totals, Grand totals inside and outside, | | 1 6 | | 1 1 10 | 1 | | 1 6 | 5 | 1 1 2 | 13 | 1 | 1 3 -4 -8 | 5 2 3 10 93 | 50,00 20,00 30,00 100 |

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

| | | Months | | | | | | | | | | | | | |
|--|---------|----------|---------------------------------------|-----------------|-----------------------|----------------------|----------------------|------------------------------|-----------|-----------------|-----------------------|-----------------|-------------------------------|--|--|
| iners, iners' laborers, | January | February | March | April | May | June | July | August | September | October | November | December | Totals | | |
| Fire bosses and assistants, Miners, Miners' laborers, Drivers and runners, Company men, Totals, | 2 2 | 2 | 2 | 1 1 1 | 3 1 4 == | 1 3 2 6 | 2 2 2 4 | 3 1 , 2 -6 == | 3 4 | 1 3 1 | 2 1 3 == | 3 4 1 | 1 27 21 3 2 54 | | |
| Outside Blacksmiths and carpenters, Engineers and firemen, Slatepickers (boys), All other employes, Totals, Grand totals inside and outside, | 1 | 1 | · · · · · · · · · · · · · · · · · · · | | | 2 2 | | 6 | 1 | 5 | 1 | 8 | 6 | | |

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | | | |
|--|---------|----------------------|-----------------|-----------|----------------------|---------------------------------|------------|-----------------|------------------|----------------------|----------|----------|----------------------------------|--|--|
| Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | | |
| Miners, Miners' laborers, Drivers and runners, Company men, All other employes, Totals, | 3 1 2 2 | 2 2 1 5 | 5 4 4 | 2 4 2 1 9 | 1 1 2 1 | 2 1 2 2 1 - 8 | 4 1 | 2 2 1 | 2 4 1 7 | 7 3 2 1 | 1 1 | 2 1 1 4 | 3: 2: 1: 1: 1: 8: | | |
| Cutside Foremen, Blacksmiths and carpenters Engineers and firemen, All other employes, Totals, | | 1 | | 1 1 | 1 1 | | 1 1 | | 1 1 1 2 | | | 1 | 1 | | |

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

| | | | | | | M | [ont] | ns | | | | | |
|---|---------|----------|-------|-------|--------------------|---------------------|-------|---------------------|---------------------------|---------|----------|------------------|--------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Welsh, Irish, German, Polish, Hungarian, Italian | 4 | 1 1 1 | 1 | 1 1 | 2 1 -1 -4 | 2 1 1 | 1 1 1 | 2 1 1 | 1 3 1 1 2 | 3 | 2 | 1 3 2 1 | 1 |

TABLE H.-Nationality of Persons Injured Inside and Outside of Mines

| | | | | | | M | Iontl | hs | | | | | |
|--|-----------------------|---------------------------------|------------------------------------|------------------------------|-------------|---------------------|-------------------------------------|--------|-------------|--|----------|-----------------------------------|-----------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| American, English, Welsh, Scotch, Irish German, Polish, Italian, Slavonlan, Lithuanian, Austrian, Russian, Totals, | 1 1 2 2 1 | 1 1 1 1 1 1 6 | 2 1 5 1 1 3 | 1 2 1 2 | 1 2 1 1 - 6 | 2 1 1 2 1 1 2 | 2 1 1 1 1 1 1 | 2 | 2 1 2 1 1 1 | 2 1 2 1 2 2 2 1 1 3 | 1 | 1 1 1 1 1 | 1 1 1 - 9 |

TABLE I.-Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each person per minute

| Average number of cubic feet per ninute provided for each person | 232 454 454 454 454 454 454 454 454 454 45 | 86.23 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 |
|---|---|--|
| Number of persons employed | 能E到E388252 | 202 210 210 210 210 210 210 210 210 210 |
| Total 1991 of cubic feet per -tuo is tuo gaissed stuning feet at 1991 | 28, 325 26, 005 26, 005 27, 133 27, 13 | 112.34 112.34 112.34 113.34 113.65 110.51 11 |
| Total quantity of air per all an all strict of all the splits in cubic feet | 13,640 176,945 176,945 178,007 178,007 85,60 85,60 17,444 179,600 | 8-1-20-20-20-20-20-20-20-20-20-20-20-20-20- |
| Zumber of cubic feet of air per minute entering the inine at inlet | 88.88.88.88.88.88.88.88.88.88.88.88.88. | 26.28.8 116.88.83.11.0 116.88.83.11.0 12.88.83.83.83.83.83.83.83.83.83.83.83.83. |
| Number of splits of air cur- rents | 40000 Q1-500 Q1- | 12 × 12 1 - 1 - 01 01 01 01 01 01 01 01 01 01 01 01 01 |
| Power used | Steam, | Steam, |
| | | |
| nsh to smeV | Gulbal, | Guibal, |
| Water gauge developed-in | «integrity of the second of th | |
| Number of revolutions per | 446468588688 | 688888888888888 |
| Depth of blades in feet | (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) | လလုံးမှေ့နေလး-နေပးဥပျား၊ ပေလ က ⊢ုပ က |
| Total ni sebuld to dibiW | က္လက္က်က္လက္လက္လက္လ က်က္က် | လေလာက်နှင်းကိုကိုလုံနှစ်နေတွင် လက် တိန် ပေးကြ |
| Diameter of fan in feet | 89898899899 | 88888868888888888888888888888888888888 |
| Method of, ventilation | Fan. Fan. Fan. Fan. Fan. Fan. Fan. | C fans. Fan. Fan. Fan. C fans. C fans. Fan. Fan. Fan. Fan. Fan. |
| (juseous (f non-gascous | Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, | Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Non-gas, Non-gas, Gaseous, Non-gas, Non-gas, Non-gas, Non-gas, Non-gas, Gaseous, |
| Rinado lo baiN | Shaft | Shaft. Sh |
| Names of Operators and Mines | Pennsylvania Coal C. Number 1. Number 4. Number 6. Number 7. Number 1. Number 9. Number 19. Number 19. Number 14. | Lehigh Valley (val c., Calebrate Valley (val c., Calebrate Valley (val c., Calebrate Vanning Hearty (vanning Hearty (vanning Hearty (vanning Vanning V |

*Idle all year.

| | | | | 11 | | |
|--|---|-----------------|-----------------------------------|-------------------|-------------------------|--------------------|
| 279 256 463 338 205 205 408 | 357 644 693 378 | 202 | 282 435 435 | 267 | 238 | 223 |
| 108 11.8 153 153 154 | 235 159 161 238 | 60 | 132 | 2 to 11 | 210 | 140 |
| 85, 928 57, 141 87, 928 28, 928 54, 350 50, 200 | 165, 960 117, 865 208, 850 128, 335 | 28,169 | 194,10 57, 20 43,40 | 745,539 | 505. | 202 |
| 18 5 5 8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 163 111 821 128 | Ś | 194 | 14. | 17. | 13, |
| 36, 210 49, 7,4 49, 7,4 73, 206 24, 321 31, 400 62, 860 25, 600 | 83,904 102,460 153,950 10,635 | 76,5 0 | 31,80) 41,575 30,465 | 66,3×8 | 50, 100 | 31,200 |
| ii | II | [- | ii | - ii | ii | |
| 25, 50 77, 52 26, 82 26, 82 37, 55 48, 115 | 122, 460 109, 295 178, 660 124, 60 | 2: 8: (00 | 110,500 43,627 35,635 | 71 0 30 | 65, 210 | 40,315 12,210 |
| | | | 13 21 21 11 12 3 2 11 | 9 | ii | 01 ← |
| 0140014 001 | ~ w re oo | f 10 | | : | 4 11 | : ; |
| Steam, | Steam, | | Steam. | Steam. | Steam, | Steam, |
| Ste . | St | | t. | St | . ž | ž |
| | : | | : | | : | |
| Guibal | Guibal | | Guibal | Guibal, | Guíbal, | Guibal, |
| 5 | 5 | | 5 | - Gu | Gu | Gu |
| मंद्रीयं बंद्यं वं वं | 1.22.12 | 61 % | 4.62.65 | 6. | r: | L |
| 0 0 0 4 8 8 8 11 11 11 11 11 11 11 11 11 11 11 | 8388 | 93 | 5535 | S | 115 | 100 |
| 441004440 6 6 | 72.4.0.0 6.0.0 | 41 44 00 40 | 10.00 A | 4 | 7 | 4 |
| 4464270704 6 6 | 6.6 | ro 10 | 6.4.6 | 2.2 | 4 | 3.4 |
| 115 115 115 116 116 | 18 17.5 28.5 22.5 | 17.6 | 20 14 17 | 16 | 12 | 12 |
| | , , , , , , , , , , , , , , , , , , , | , w | | | | |
| Fat, Fan, Fan, Fan, Fan,] | fans, fans, fans, fans, | g fans,. | fans, Fan, | Fan, | Fan, | Fan, |
| | | ٠. | _ | as. | as. | as. |
| Non-gas. Non-gas. Non-gas. Non-gas. Non-gas. | Gaseous, Gaseous, Gaseous, Gaseous, | Gaseous | Gaseous, Non-gas. Non-gas. | Non-gas. | Non-gas. | Non-gas. |
| ZZZZZ ZZ | | : | 522 | : | : | - 42 |
| Slope, Shaft, Slope, Slope, . Shaft, Shaft, Shaft, Tunnel, . | Tunnel, Shaft, Shaft, Shaft, | Shaft, | Shaft, Shaft, Tunnel | slope, | Shaft, | Slope, |
| SE S | ERRE SHEET | . Sh | Sh | <i>3</i> . | S. | <u> </u> |
| | c . | | | | d . | |
| G | uog : : : : | , o : | | | imite | 9 |
| I pu | Hud r 2. | Hudson Coal Co. | Laurel Run, Laffin, Laffin, | Traders' Coal Co. | Avoca Coal Co., Limited | Clarence Number 1, |
| No. | and imbe | on C | | rs, | oal C | nce (mper |
| ted Control | are SZ: | Huds ge. | tun, | rade od, | | Nu Nur |
| | | | | | | |
| Hillside Coal and Iron Co. Consolidated No. I. Consolidated No. 2. Butter Marcy. Butter Marcy. Thomas, Pernwood, | Delaware and Hudson (*o. Baltimore, Baltimore Number 2. Baltimore Number 5. Delaware, | Rid | rel I in, . | T | Avoca, | rence |

*Ventilated by No. 1 fan.

TABLE 1.-Operators, location of collieries, railroads, etc.

| Railroad to Mine | Brie | Lehigh Valley | Brie | Delaware and Hudson | Delaware and Hudson | New York and Western | Erle and Lehigh Valley | Erie |
|--|---|--|--|---------------------------|------------------------------|----------------------|-------------------------|--------------------|
| Post Office | Pittston, West Pittston, West Pittston, Pittston Painsville, West Pittston, Pittston, Pittston, West Pittston, | Wilkes-Barre, Wilkes-Barre, Pittston, Pittston, Wilkes-Barre, Wilkes-Bar | Scranton, Pittston, Pittston, Pittston, | Lorranceton, | Dorranceton, | | Pittston, | |
| Name of Superin- tendent | Wm. P. Jennings, Henry F. McMil- lan, lan, P. McMil- lan, P. Jennings, J. Jin F. (Jark., J. Jin F. (Jark., J. Jin P. Jennings, Jun, Wm. P. Jennings, Henry F. McMil- lan, | F. E. Zerbey. F. E. Zerbey. W. D. Owens, W. D. Owens, [W. D. Owens, | [V. L. Peterson, Superint-adent. E. D. Caryl, As- sistant Supt. E. D. Caryl, As- sistant Supt. E. D. Caryl, As- sistant Supt. | E. R. Pettebone, | E. R. Pettebone, | | A. B. Law, | |
| Post Office | Scranton, | Wilkes-Barre, | Scranton, | Scranton, | Scranton, | Avoca, | Avoca, | Scranton, |
| Name of General Superint ndeat | William A. May, Gen'l Manager. W. W. Inglis. General Supt. | S. D. Warriner, General Manager, | William A. May, General Manager. | C. C. Rose, | C. C. Rose, | Theodore Hogan, | Wm. H. Hollister, | C. B. Sturges, |
| County | Luz-me, | Luzerne, | Luz-rne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, |
| Names of Operators and Col- lieries | Penns, Ivania dal Co. No. N. Ewen. No. 6. No. 14. No. 14. No. 8 washery. No. 8 washery. | Lehigh Valley Coal Co. Prospect. Mineral Spring, Heidelburg No. 1. Heidelburg No. 2. Henry washery. | Hillside Coal and Iron Co. Butter. Fernwood Consolidated Boston washery. | Delaware, Delaware No. 5, | Pine Ridge, Coal Co. Laffin, | Traders' Coal Co. | Avoca Coal Co., Limited | Clarence, Coal Co. |

| quan- | Number of horses and mules | 105 119 119 133 | 488 | 8 9 | 276 66 86 81 48 | 451 | 8 474 |
|--|---|--|----------------------------------|---------------|---|-----------|------------------------|
| njured, | Number of pounds of dynamite | 1, 874 12, 837 26, 387 10, 490 27, 809 | 79.397 | 100 05 | 349, 132 35, 270 9, 150 5, 2.4 | 399,663 | 369, 606 |
| d and ii | Number of kegs of powder used | 6,535 11,933 14,166 10,178 20,321 | (3,133 | 000 | 28, 37, 31, 31, 32, 31, 32, 31, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32 | 48,520 | 48,520 |
| kille | Number of non-fatal accidents | 19 | 83 : : | 6 | 23 = 1 = 2 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 | 53 | 33 |
| mber | Number of fatal accidents | H H 4 8 # | 53 | s | 12 8 - 1 | 19 | 20 |
| ed, nu | Number of employes | 464 1,110 1,170 757 1,419 | 4,920 | 73 | 1,858 301 2,858 | 2,981 | 3.040 |
| mploy | Number of days worked. (Totals are averages, not including washeries) | 205 136 156 193 191 | 176 355 357 | 28 | 252 218 218 177 199 | 212 | 212 |
| ersons e | Total production of coal in tons | 189,629 241,884 257,579 225,137 609,900 | 1,524,123 56,831 17,717 | | 1, 603, 996 900, 296 234, 183 139, 884 120, 648 | 1,395,011 | 371,022 |
| worked, number of persons employed, number killed and injured, quanand dynamite used, etc. | Number of tons sold to local trade and used by employes | 1, 676 3, 965 6, 865 1, 333 | 13,839 | | 2, 573 2, 386 2, 386 | 8,812 | 8,812 |
| rked, nu d dynam | Number of tons used at collieries for steam and heat | 2,184 9,438 4,004 1,962 11,178 | 28,766 5,841 3,055 | 9,161 | 69, 500 22, 995 9, 732 15, 874 | 118, 101 | 118,101 |
| days | Number of tons of coal shipped to market | 187, 445 230, 770 249, 610 216, 310 597, 389 | 50,990 | 70,706 | \$26,953 \$26,953 \$130,142 142,388 | 1,268,098 | 371,022 |
| number c | County | Luzerne, | Luzerne, | | Luzerne, | | Luzerne, |
| TABLE 2Number of tons of coal mined, | Names of Operators and Collieries | No. 8, Ewen, Ewen, No. 6, No. 6, No. 6, No. 10, No. 14, No. 14 | No. 6 washery. No. 8 washery. | Ewen washery, | Totals. Lehigh Valley Coal Co. Mineral Spring. Heidelburg No. 1. Heidelburg No. 2. | | Henry washery, Totals, |

*Employes included with Ewen breaker.

TABLE 2.- Continued

| Number of horses and mules | 86.4-19 | 1 6 | 4 | 1:0 | 50 | 1:9 | 10: | 155 | 60 |
|---|----------------------------------|---------|-----------------|----------|--|---------|--|---------|-------------------|
| Number of pounds of dynamite | 27, 134 25, 911 12, 3.4 | 65,399 | | 65,399 | 2,545 | 5, 130 | 16, 795 | 13,30 | 3,310 |
| Number of kegs of powder used | 15,047 6,601 6,624 | 28,30 | | 25,3 0 | 5,868 | | 11,256 6,951 | 21,27 | 10,4:0 |
| Number of non-fatal accidents | ਰਾ 10 ਜਾ | 13 | | 13 | 10 | 10 | 1000 | S | |
| Number of fatal accidents | HH61 | 4 | | 4 | . 00 | . 02 | 9113 | L- | - |
| Number of employes | 667 373 495 | 1,535 | 35 | 1,570 | 415 | 1,340 | 393 | 1.169 | 367 |
| Number of days worked. (Totals are averages, not including washeries) | 215 152 160 | 189 | 147 | 189 | 159 | 184 | 178 | 165 | 271 |
| Total production of coal in tons | 286, 460 119, 819 154, 824 | 561,103 | 134, 297 | | 138,163 373,844 | 512,007 | 241,659 | | 137, 984 |
| Number of tons sold to local trade and used by employes | 3,202 251 1,817 | 5,270 | | 5,270 | 3,175 | 3,155 | 3,628 | 4,290 | 4,928 |
| Number of tons used at collieries for steam and heat | 17,775 9,969 9,048 | 36, 792 | 4.170 | 40,562 | 25, 552 55, 728 | 81,280 | 38,417 | 55, 207 | 7,810 |
| Number of tons of coal shipped to market | 265, 483 109, 569 143, 959 | 519,041 | 130,127 | 649, 168 | 109, 476 318, 116 | 427,572 | 202, 614 78, 989 | 281,663 | 125,246 |
| County | Luzerne, | | Luzerne, | | Luzerne | | Luzerne | | Luzerne, |
| Names of Operators and Collieries | Butler. Fernwood. Consolidated. | | Boston washery, | Totals, | Delaware, Delaware and Hudson Co. Baltimore No. 5, | Totals, | Hudson Coal Co. Fine Ridge, Tadlin, | Totals, | Traders' Coal Co. |

| 52 | | 24 | 1,541 |
|--------------------------------|-------------------|------------|-----------------------------|
| 4,177 5,235 | | 9,400 | 61 93 199,334 620,757 1,541 |
| 4,177 | | 4.9.5 | 199, 394 |
| | | _ | 93 |
| +- | | c1 | 61 |
| 227 | | 245 | 13, 651 |
| 141 | | 194 | 235 |
| 94.859 141 327 | | 73,822 224 | 47,589 5,225,201 195 13,651 |
| 7,181 | | 514 | |
| 81.178 6,500 | | 6,000 | |
| 81.178 | | 67, 308 | 4,823,425 353,787 |
| · · · | | Luzerne, | |
| Avoca, Avoca Coal Co., Limited | Clarence Coal Co. | Clarence,I | Grand totals, |

TABLE 2.—Recapitulation

| Luzerne, 1572,230 37,927 38,838 1,683,966 176 4,993 23 33 63,133 79,297 |
|--|
| |
| |
| 1, 552, 230 37, 927 13, 839 1, 603, 996 176 4, 983 23 1, 639, 120 1, 639, 120 1, 64, 164 2, 120 1, 64, 164 2, 120 1, 120 |
| 1, 552, 230 37, 927 13, 839 1, 608, 996 176 649, 139 14, 639, 130 5, 812 1, 766, 33 212 649, 158 140, 982 6, 270 646, 900 189 287, 600 |
| 1,572,230 37,927 13,839 1,603,996 1,603,996 1,603,120 1,706,133 1,706,133 1,204 1,905 1,207 1,706,133 1,204 1,905 1,207 1,206,133 1,204 1,905 1,207 1,206,133 1,207 1,206,103 1,203,137 1,203,137 1,005 1,203, |
| 1,552,200 37,927 13,839 1,639,129 115,101 5,812 427,5138 40,982 5,270 227,632 56,207 4,220 273,732 20,310 12,633 4,823,425 353,787 47,989 |
| 1,552,220 37,927 1,639,120 115,101 427,572 81,200 273,732 20,310 4,583,425 383,787 |
| 1,552,230 1,639,120 659,120 657,572 273,732 4,823,425 |
| |
| : |
| |

TABLE 2.—Part 2.

| 1 | REPORT OF THE | DEPARTMENT |
|-------------------|--|--|
| | Number of air compressors | ∞ 1 4 € 1 |
| | Number of electric dynamos | H + 4000 |
| per | Quantity delivered to surface singles—sanipa | 8, 220 8, 910 5.70 2, 670 1, 300 1, 600 150 23, 180 |
| əjr | Capacity in gallons per mini | 19,597 10,607 10,607 700 8,600 5,000 1,100 46,404 |
| Buin | Number of pumps deliver water to surface | 00 221330 00 00 00 00 00 00 00 00 00 00 00 00 |
| | Total horse power | 20, 939 |
| all. | Number of steam engines of | 4401 4401 1330 1330 151 151 151 |
| ives | Electric | 122 |
| Locomotives | TiA | F- |
| 3 | Steam | 39 300.00 |
| | Total horse power | 30, 157 |
| Number of Boilers | Horse power | 9,682 7,000 2,870 3,100 3,900 125 700 250 |
| oer of | TsluduT | 62 53 20 18 18 16 16 15 3 |
| Numl | Horse power | 240 60 60 1,800 160 50 2,53) |
| | Cylindrical | 11 111 88 88 88 88 |
| | County | Luzerne, |
| | Names of Operators | Pennsylvania Coal Co. Lehigh Valley Coal Co. Hillishe Coal and Irno Co. Holtaware and Hudson Co. Hudson Coal Co. Traders' Coal Co. Avcor Coal Co. Limited. Clarence Coal Co. |

TABLE 3.-Number of each class of employes inside and outside of mines

| | Grand total inside and outside | 464 1,110 1,170 1,419 | 4,920 | 948 | 55 | 4,993 | 1,858 537 301 285 | 2,981 |
|---------|----------------------------------|---|-------|----------------------------------|-----|---------|---|-------|
| | 'Total outside | 135 198 223 191 257 | 1,004 | 33. | 13 | 1,077 | 415 150 132 | 819 |
| | All other employes | 44 103 119 74 151 | 491 | 188 | 63 | 554 | 250 87 63 47 | 447 |
| | Bookkeepers and clerks | 810001 | 13 | - | | 14 | P-400 | 15 |
| de | Slate pickers (men) | 8 4 2 2 3 3 4 8 8 4 8 4 8 4 8 4 8 4 8 4 8 4 8 4 | 87 | | : | 87 | 122 20 | 54 |
| Outside | Slate pickers (boys) | 72 39 79 79 | 262 | | : | 262 | 43 45 31 | 133 |
| | Engineers and fremen | 20 20 21 21 | 85 | 63 4 | 1 | 55 | E854 | 32 |
| | Blacksmiths and carpenters | 111 112 111 | 61 | ; ; | 1 : | 19 | 122 | 69 |
| | Foremen | пппппп | 20 | | 63 | 12 | 01 | 10 |
| | Superintendents | | : | ::: | : | | н : : | = |
| | əbizni İsJoT | 323 912 947 566 1,162 | 3,916 | | | 3,916 | 1,443 387 169 163 | 2,162 |
| | All other employes | 131 51 62 62 | 325 | | | 325 | 300 21 22 23 | 397 |
| | сошьяну теп | 180 170 170 10 | 467 | | : | 467 | | |
| | Pumpmen | 8,404 | 00 | | | 00 | 11.00214 | . 27 |
| Inside | Door boys and helpers | 27 16 10 14 | 92 | | | 92 | 133 | 69 |
| In | Drivers and runners | 47 917 80 80 132 | 467 | | | 467 | 202 | 328 |
| | Miners' laborers | 155 224 224 256 434 434 | 1,33 | | : | 1,33 | 385 85 46 49 49 | 565 |
| | Miners | 67 248 328 152 409 | 1,204 | | : | 1,204 | 463 150 68 60 | 741 |
| | Fire bosses and assistants | : : 03 H 4 | - | 1:: | 1: | 100 | 71 | 23 |
| | Assistant mine foremen | 617000010 | ř | :: | : | 115 | 61 : : : | 01 |
| | Mine foremen | L (0 60 61 54 | = | ::: | 1: | = | 9 27 | 10 |
| | | : | | : | | : | : | |
| | County | ne, | | ne, | | | ne, | |
| | Ö | Luzei ne, | | Luzerne | | | Luzerne, | |
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| | 10. | 1 | | :: | | : | :::: | |
| | pu | CÇ. | | | | | S : | |
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| | perator Heries | ınsylvania Coal Co. | | | | Totals, | h Valley Coal Co. | |
| | Oper | vani | | ×. | | : | rall ing. | |
| | jo | nsyl. | | sher | | als. | Spr | |
| | Names of Operators and Heries | Pennsylvania Coal Co. No. 8. Ewen. * No. 6. No. 19. | | No. 6 washery, No. 8 washery, | | Tots | Lehigh Valley Coal Co. Prespect. Mineral Spring. Heidelburg No. 1. | |
| | Nan | Pen | | 0.0 | | | L resp fine fine feide | |
| | P-4 | ZEZZZ | | 7.7 | | | TEEL | |

*Including 30 employes working at Ewen washery.

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| 0 | Y | |
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| 0 11 | Y | |

| - | obistuo and obisui Istor burrf) | 60 | 3, 1140 | 667 373 495 | 1,535 | 35. | 1,570 | 415 | 1,340 | 77.6 | 1, 169 |
|---------|---------------------------------------|----------------|---------|--|----------|-----------------|---------|--|---------|-----------------|---------|
| | ohistuo IstoT | - 62 | 878 | 218 118 136 | 47.5 | 133 | 507 | 123 | 3×1 | 214 82 | 326 |
| | sayolqmə tadto IIA | - 67 | 496 | \$ 200 \$ 200 - | 61 61 | | 265 | 相置 | 198 | 227 | 154 |
| | Bookkeepers and clerks | 1 | 16 | T-01 | t- | - | 00 | -4 | 100 | 63- | 6.0 |
| de | Slate pickers (men) | -: | 177 | | 7 | : | 40 | 216 | 93 | 85 m | 9 |
| Outside | S'ate pickers (boys) | 60 | 136 | 988 | 15) | | 120 | 33 | 88 | ÷ 55 | 19 |
| | กจเกราหิ bas eroonigaA | 9 | 101 | 5 n = 1 | 39 | | 33 | 15 49 | 67 | 1 % = | 47 |
| | Elacksmiths and earp nters | : | 69 | 10011 | 30 | : | 30 | 12.63 | 12 | 1 = == | 16 |
| | Попети | : | 15 | | 00 | - | 4 | . — ca | es | 01 | 00 |
| | Superintendents | : | - | 7 - : : | - | : | | :: | 1 | | |
| | Spisul IsloT | | 2, 162 | 444 275 350 | 1,003 | | 1,063 | 293 | 828 | 732 | 843 |
| | All other employes | | 192 | 0.00 | 677 | | 156 | 1 4 4 | 5.5 | 122 | 15 |
| | Company men | | : | <u>8</u> 28 | = | | 114 | 임공 | 126 | 65 × | 9 |
| | ъпринтен | : | 101 | ो ०० ४। ०१ | s. | | 6 | 016- | 6. | 400 | 1- 1 |
| Inside | D or heys and helpers | | 8 | 10 10 | 3 | | 65 | 12 | 5 | ∞ ∞ | 16 |
| Ins | Drivers and runners | | 1 200 | 14.8% | 148 | : | 148 | 128 | 86 | 898 843 | 122 |
| | Miners' laborers | : | 13 | 18 2 2 2 1 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 | 315 | | 312 | 119 | 3000 | 151 | 257 |
| | Miners | : | 741 | 178 301 144 | 450 | 1 | 423 | 214 | 282 | 186 | 321 |
| | stnetsizza ban sessod svid | : | . 57 | -:: | - | 1 : | 1 | 000 | 티 | t - : | t - |
| | nomorol onim tastsisst. | 1 | - 21 | ::: | ı : j | | : | | 0) | 1 63 | 11 |
| | nome to be sail. | 1 | 9 | [. 211 | | | 1 13 | | 1 3 | i ' | 1 20 1 |
| | | | : | : | | : | : | | : | : | i |
| | County | Luzerne, | | Luzerne. | | Luzerne, | | Luzerne. | | Luzerne, | |
| | Names of epotators and Col- herres | Henry washery, | Totals. | <u> </u> | | Boston washery, | Totals, | Delaware and Budson Co. Pelaware. Baitimore No. 5. | Totals. | Pins Bake. | Totals, |

| 367 | 6 7 16 6 2 53 92 327 | 245 | 301 52 1,732 3,435 13,051 |
|----------------------|-----------------------------------|--|---|
| 97 3 | 16 6 2 53 92 32 | 1 12 | 3,435 |
| 39 | 533 | 1000 | 1,752 |
| 4 | c1 | | 63 |
| 6 | 9 | 20 13 | 301 |
| 31 | 16 | 20 | 123 |
| 9 | 1- | 4 | 363 |
| 270 1 1 6 | 9 | 60 | 208 |
| - | " | - | 25 |
| - | - | ====================================== | 10 |
| | 1 90 90; 32 4 2 10 4 235 1 1 | | 27 53 3,271 2,194 1,241 232 67 819 875 9,616 5 25 208 363 |
| 26 | 4 | | 875 |
| 26 | 10 4 | 6 | 819 |
| 63 | 2 | 11 65 | 67 |
| 14 | 4 | 0.0 | 232 |
| 50 49 14 2 | 1 90 90, 32 4 2 | 65 14 5 | 1,241 |
| 0.5 | 90 | | 2,994 |
| 125 | 98 | 11 | 3,271 |
| 61 | - | : | 53 |
| : | - | | 27 |
| ୍ଷ | įį | ii T | |
| | | : | 37 |
| Luzerne, 2 2 125 | Luzerne, | Luzerne, | |
| Traders' Coal Co. | Avoca Coal Co., Limited Avoca, | Clarence Coal Co. | Grand totals, |

TABLE 3.—Recapitulation

| | 578 3,040 F07 1,570 | | | | 3,435 |
|-------------------------|---|----------------------------|------------------|--------------------------|---------|
| | 265 | | | | ļ —i |
| | 16 | 10 | 600 | 9 | 52 |
| 12 | 20.02 | 20 | 42 | 83 | 1 63 |
| | 120 | _ | | _ | 729 |
| 63. | 33 | 67 | 4-1 | 17 | 363 |
| | 60 20 - | | | | 308 |
| | TO 4 | | | | 13.5 |
| l | | _ | - | 00 | 123 |
| · 65 | 2,162 | _ | _ | _ | 9,616 |
| 1 | 297 | | | | 875 |
| 467 | 114 | 126 | 19 | 45 | 818 |
| | 2.5 | o, | - | [- | 67 |
| 92 | 66 22 | 26 | 16 | 23 | 232 |
| 467 | 328 | œ. | 105 | 95 | 1,241 |
| 1,333 | 312 | 322 | 257 | 202 | 2,994 |
| 1,204 | 423 | 297 | 321 | 255 | 3,271 |
| | 3 - | | | | 53 |
| | °¹ : | c.) | 60 | G 2 | 126 |
| = | 5 ,0 | + | 00 | 77 | 37 |
| | | Luzerne, | | | |
| Pennsylvania Coal Co.,] | Lebigh Valley Coal Co., Hillside Coal and Iron Co., | belaware and Hudson Co., } | Hudsen Coal Co., | Miscellaneous companies, | Totals, |

TABLE 3.-Part 2.

| - | IstoT | 205 136 156 193 | 252 218 177 190 | 215 193 160 | 159 | 178 | 271 | 141 | 224 |
|----------------|-----------------------------------|---|---|---|--|--------------------------------------|------------------------------|--------------------------------|-----------|
| | Dесеmbет | 8 1141 | 23 18 16 17 | 20 14 | 15.2 | 16 | 2,5 | 14 | 18 |
| | November | 16 17 16 17 | 23 21 18 17 | 17 19 | 12. | 11 | ន | 14 | 18 |
| | radotaO | 1233 | 119 | 13 to 30 to | 14 | 135 | 30 | 53 | 21 |
| er | TedmetqeZ | 91 15 18 18 18 | 21 21 21 | 200 17 16 | 10 | 13 | 12 | 11 | 20 |
| n Breaker | tsuguA | 12 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15 | 113 | 17 113 | 13 | 16 | 23 | 10 | 18 |
| Worked in | Ang | 552256 | 13 17 15 | 12.1 | 13 | 113 | 21 | 11 | 16 |
| | nne | 22882 | 16 16 18 | 19 | 122 | 16 | 60 | 12 | 16 |
| Number of Days | May | 25 55 55 55 55 55 55 55 55 55 55 55 55 5 | 1288 | 20 21 21 21 | 4.00 4.00 | 19 | 100 | 1 | 21 |
| Num | liudA | 22 1 1 4 4 4 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 | 12 20 23 | 25 16 15 | 113 | 등일 | 22 | = | 50 |
| İ | นานยน | 116 8 8 8 12 4 | 9881168 | 19 17 222 | 15 21 | 19 | 26 | 12 | 25 |
| 1 | Бергиягу | 10 10 10 9 | E 12 2 | 10 14 12 | 122 | 52 | 1 22 | 6 | 16 |
| | January | 11 15 | 24 21 16 17 | 10 to 41 | 16 | 1212 | 20 | 14 | 18 |
| | b | | : | - : | : | : | | : | |
| | County | Luzerne, | Luzerne | Luzerne, | Luzern | Luzerne, | Luzerne | Luzerne | Luzerne, |
| | Names of Operators and Collieries | No. N. Printsylvania ('0al Co. Bwen, 'No. 6. No. 6. No. 16. No. 14. No. 14. | Prespect Lebigh Valley Coal Co. Misseal Spring. Heldelburg No. 1. Hendelburg No. 2. | Hillsde Call and Iron Co. Formwood Consolidated. | Delaware, Islaware and Hudson Co. Baltimore No. 5, | Pine Bidge.* Hudson Coal Co. Laffin, | Hidgewond, Traders' Coal Co. | Avera, Avera Coal Co., Limited | Clarence, |

*Laurel Run coal is prepared in Pine Ridge breaker.

TABLE 4.-Fatal accidents inside and outside of mines

| . Nature and Cause of Accident in Brief | Instantly killed by a fall of rock at face of his breast. | Killed by a fall of rock at face of breast. Killed by a fall of top rock at face of | Killed by falling on revolving screen. | a premature blast reharge. | Fatally scalded by steam. Died same day, Outside, | | | <u> </u> | ř | rock. Di | Killed by fall of top rock at face of breast. | Killed by falling under loaded trip of | Killed by a blast through cross-cut. Patally higured by fall of top coal. Died some day | Killed by a fall of rock after returning to face of breast after a blast | | Farally burned by gas he ignited. Died June 6, 1905. |
|---|---|---|--|----------------------------|---|--------------------------------------|-------------------|-----------------|----------------|-------------------|---|--|---|--|-------------------|--|
| County | | | | | | | | Larzenne | | | | | | | | |
| Name of Mine | Wyoming shait, | Laffin shaft, | Henry washery, | Prospect shaft, | No. 14 | No. 14 shaft, Consolidated: hait, | Aveca washery, | No. 14 tunnel, | Laflin tunnel, | No. 11 shaft, | No. 14 shaft, | Henry shaft, | Consolidated shaft, No. 10 shaft, | No. 4 shaft, | No. 4 shaft, | No. 14 shaft, |
| ansing to tolinum | -: | | : | in | 10 | | : | 1 :: | : | : | 1 1 | : | 1 2. | 4 | : | 33 |
| swobiw to partian | - | | : : | M. 1 | M. 1 | υ <u>΄</u> ω΄ | vi vi | M. 1 | υ <u>΄</u> . | v. | M. 1 | sá | N. N. | M. 1 | M. | M. 1 |
| 93A Married or single | 40 S. | - - - | 12 | 6.0 | 41 3 | \$ 83 | - 17 | 50 | 100 | 30 8 | 86 | 1-1 | 44 | 25.0 | 101 I | - OS |
| प्रशास्त्रकात्। — – | Miner, | Laborer, | Slatepicker, | C | Engineer, | Miner, | Bell boy | Miner, | Miner, | Laborer, | Miner, | Driver, | Miner, | Minor, | Laborer, | Fire boss, |
| Zati-melity | Polish, | Polish, Polish, | American, | Polish, | American, | Italian, | American, | American, | Italian, | Irish, | English, | Polish | P lish | Polish, | Hungarian. | Irish, |
| Name of Person | Adam Stader, | Tony Ordlick, | Ralph Soden, | Authory Karpinski, | Japies Ross, | Augel Fetrania, | pavid Jeffierbes, | James Bradigan, | J ha Mavghoni, | 3 Thomas McNulty, | Patrick Hughes, | Frank Supavitch, | Arthony Zereevewisk., William Spudis. | Stanley Mofeski, | Joseph Grilaoski, | Thomas E. Kerby, |
| | 0 | 9 9 | ç. | és | â | 三角 | :1 | - | 1 | 2(0) | 10 | <u>e.</u> | 15.45 | 92 | εī | 1.00 |
| In diens to stad | Jan. | | | | | Feb. | | March 1 | | Civil | | | Max | | | Jan |

TABLE 4.—Continued

| 111111111 | / L | 11.1.3 | | 4 1. Z | | 1 141 1. | 124 | Or | 141 | INES | | O | IL. J | <i>J</i> 00. |
|--------------------------------------|-------------------------------|-------------------------------|---|---|---|---|---|---|--|--|--|--|--|-------------------------------|
| Nature and Cause of Acedent in Bri f | Killed by a fall of top coal. | | Died June 15, Killed by a fall of top rock while loading | Killed by being run over by railroad car. | Killed by being caught by endless repe in | Fifted by fall of rock at face of breast. Instantly killed by a water car becoming | J uncoupled on slope and striking them. | Fatally burned by gas. Died July 10. Killed by fall of top rock at face of | Killed by empty trip of cars coming on | Killed by fall of rock on gangway road. Killed by an explosion of gas he lanited. Fatally injured by premature blast. Di-d | same day. Fatally burned by gas. Died August 27. Killed by fall of rock while robbing pil- | lars. Instantly killed by a fall of top rock while loading car. Killed by a fall of top rock at face of | breast. Fatally finited by a blast through p.llar. | Killed by a fall of top rock. |
| County | | | | | | | | Luzerne, | | | | | | |
| Name of Mine | Henry Red Ash | Hillman slope, | shaft. Butler slope, | Pine Ridge | Dreaker, | No. 14 tunnel, | Baltimore No. 5 | Shart. No. 11 shaft, No. 8 shaft, | Heidelburg shaft,. | No. 14 shaft, Midvale slope, No. 9 shaft, | No. 6 shaft, No. 14 tunnel, | Henry Red Ash, Henry Red Ash, Ridgewood slope,. | Laftin shaft, | No. 14 shaft, |
| Number of orphans | 10 | - | : | 63 | : | 0010 | 01 | :: | 60 | | (- ro | | 2 | |
| Kumber of widows | - | = : | : | 1 | e pred | | | | _ | | | | - | |
| olgnis 40 boirtsM | M. | N. K. | <i>y</i> . | M. | M. | M. M. | M. | M. M. | M. | வ்வ்வ் | MM. | Z.Z. | M. | 7. |
| VE6 | ST | 15 IS | 83 | 01 27 | 40 | 45. | 97 | 5 % 5 % | 25 | 31.82 | 77 63 | 6534 | C1 [- | |
| ttothrau00 | Miner, | Miner | Lab rer, | Laborer, | Slate boss, | Miner, | Laborer, | Rock miner, Laborer, | Slope foot- | Laborer, Bratticeman, Miner, | Miner, | Laborer, Laborer, Miner, | Laborer, | Laborer, |
| Mationality | English, | Polish, | Italian, | American, | Italian, | Irish, English, | Slavonian. | IrishItalian, | American, | Italian, Slavonian, G rman, | American Polish, | Russian, Russian, Hungarian, | Polish, | Polish, |
| Name of Person | Jacob Chere, | John Fris. Scott Carkhuff. | John Frank, | Michael Kenney, | William Vaull, | John E. Burke | Steve B duar, | John Kelley, Daniel Giabbarresi, | Thomas Mitchell, | Carlo Corsorzo, Stanley Zelensky, | James Killow. Lowis Veseskie, | John Timkovitch, John Tutanto. Anthony Chichonok, | Andrew Popushak, | Louis Hoshila, |
| | | 22 | ÷. | 0,1 | n | \$1 °V | c: | ÷ 8 | - | 01112 A | 48 | 21219 | ŵ | 50 |
| Tuoblook lo algel | June | | | | | July | | | Aug. | | | ž. Litar | | |

| Killed by falling down shaft. Killed by falling under empty cars while | Fatally injured by fall of rock. Died next | day. Killed by a fall of rock from the roof. | Fatally burned by an explosion of gas. | Fatally injured by kick from muly. Died | Killed by a fall of top rock in sinking | Fatally injured by fall of rock. Died No- | | | Killed Ball of top rock. Fatally injured by pemature blast. Died | Fatally injured by a fall of rock. Died | Norman 21. Killed by a fall of top rock in breast, Killed by b ing caught between 1 aded | cars on gangway. Killed by a fall of bony coal. Killed by fall of rock at face of breast. |
|--|--|---|--|---|---|---|----------------------|---|--|---|--|---|
| | | | | | | | | Luzerne, | | | | |
| Miner, 33 M. 1 1 No. 14 shaft, Carpenter, . 32 M. 1 2 Henry outside, | No. 14 shaft, | Baltimore No. 5 | Polish, Miner, 38 S. S No. 14 shaft, | American, Driver, 20 S Clarence slope, | Mineral Spring, . | S Hillman slope, | No. 10 breaker, | Mineral Spring Mineral Spring Fernwood slope, | Prospect shaft, | No. 14 shaft, | Laffin shaft, | No. 14 tunnel, Wyoming shaft, |
| E | 1 2 | c1 | : | : | 1 | : | : | 67 | | c: | -61 : | |
| M. M. | M. | | oź. | J. | M. | υż | υ <u>΄</u> | N. E. N. | vi vi | M. | NZN. | M. |
| 12.65 | 600 | 30 | Sign | 07 | 85 | 8 | 13 | S 1-1- | S 62 2 62 2 63 | 60 | មខម្ | 6.64 |
| Miner, | Miner, 33 M. | Polish, Laborer, 30 M. | Miner, | Driver, | Welsh, Laborer, 28 M. 1 1 | Laborer, 20 | Slatepicker, 15 | Miner, 28 Laborer, 37 Miner, 27 | Lithuanian, Miner, 32 Italian, Miner, 32 | Italian, Laborer, 31 | Laborer, Runner, | Laborer,, 50 M. Miner,, 42 M. |
| Polish | Lithuanian,. | Polish, | Pollish, | American, | Wel:h, | Polish | American, | Polish, Polish, Lithuanian, . | Lithuanian,Italian, | Italian, | P 1'sh, Laborer, 25 Slavonian, Laborer, 30 I'a ian, Runner, 29 | English, |
| 27 Frank Smith, | Adam Telinski, | 4 'asper Sdaja, | 5 George Usvick, | 12 James Shields, | 17 William Reese, | 38 John Shuta, | 15 Anthony McAndrew, | Joseph Buchak, Michael Zinch, George Zelonis, | Simon Stuka, | Frank Starne, | Michael Pavolski, George Mergo, | William Rutlodge, |
| F 87 | 33 | 41 | 10 | 51 | 1.7 | 99 | 15 | 哥哥哥 | 11.15 | 5 | 0 <u>111</u> | 35 |
| Weight. | | O.t. | | | | | Nov. | | Dec. | | | |

148

| Nature and Cause of Aecident in Brief | Arm breaken by fall of rock. Leg heoken hy fall of top reek. Leg heoken while standing on car bumper by deor. Leg breaken, while lifting piece of eaal. If fell on him. Leg bereken while thing piece of eaal. If fell on him. Leg bereken while uncupling cars by car bumpers. Face and hands burned by gas. Face and hands burned by gas. Thigh breaken by car. He put his foot a grants if to bold if, as. Face and hands burned by gas. Thigh breaken by cars on slope. Arm broken by cars on slope. Leg broken by cars on slope. Leg broken by an blocking car. The block-ling letween then. Pairfully squeezed between cars on chain hoist. Outside. Arm broken by blocking car. The block-ling slipped. Leg broken by all of rock. Seriously indured by a premature blast. Leg broken by alling of car. Leg broken by alling of car. Leg broken by alling of car. Skull fractured by fall of top coal. Ilead cut. Struck by clevis on slope rope. Face and hands burned by gas in abandonel break. Leg broken by all of top coal. Idea and hands burned by gas. Leg broken by alling by gas. Leg broken by all by certifying head block and coming down on his leg. |
|---------------------------------------|--|
| County | Luzerne, |
| Name of Mane | Laffin shaft, Pine Ridge shaft, Oakwood shaft, No. 14 shaft, Baltimore No. 5 Wyoming shaft, Prospect shaft, Prospect shaft, Prospect shaft, No. 14 shaft, |
| Married or single | WE KEN WWW. E EEE W E WEE |
| Age | 1877 4 6 8222 H 783 5 7 8888888 8 888 8 8 8 8 8 8 8 8 8 8 8 |
| nothaquooO | Miner, Driver, Laborer, Runner, Miner, Miner, Laborer, Laborer, Laborer, Laborer, Miner, Laborer, Miner, Miner, Laborer, Miner, Miner, Laborer, Laborer, Miner, Laborer, Laborer, Laborer, Miner, Laborer, La |
| Vationolity | Polish, Weish, Weish, Lithuanian, Slavonian, Polish, Polish, Slavonian, Irish, Polish, American, Slavonian, Cithuanian, Marerican, American, Polish, Polish, Russian, |
| Name of Person | Phillips Kraft Meshack Roese Mathew Pakens Willeam Savage Charles Lawbaugh David Kowskow Goorge Fronch Milliam Brennan Anthony Kashinelack John Hannon James Colock Siemend Temascows Fronch Joseph Bartoshuner Goorge Falter |
| | |
| Date of accident | Madreh Ma |
| | Map. |

| Back painfully bruised by fall of rock. Leg broken by chain on empty car strik- | Leg hadly cut by coal flying from a | Leg broken by piece of rock falling on | Think broken by premature blast he was firing. | Arm broken. Thrown by a mule. Leg and ribs broken by fall of rock. Leg broken by fall of rock. Hip dislocated. Fell under a moving car. Burned by powder at box. A spark from his barn ignified it | Leg struck and broken by empty car. Collar bone broken. Struck by car. Leg broken. Fell off car he was riding | Body squeezed by falling under caus. Hips bruised between car and door. Arm cut off by railroad car. He fell | Body painfully bruised by rock sliding on | Farming Farmed by gas. Rock fell and hacke hraffice. | Ribs broken between car and rib. Seriously squeezed between car and pil- ar | Leg broken by car while spragging it. ('Ollar bone broken by falling in front of | Body bruised by car. Tried to jump on and fell. | Thigh broken by air locomotive. Head and body cut by fall of top rock. Leg boken. Struck by flying coal from | Head cut and bruised by coal flying from blast. | Face and hands humsel by gas. Log brotten by rock falling on him. Log brotten by premature blast shoulder and log bruised by empty car falling on him. Outside, | Arm besiden by falling on rail. Face and hands severely hurned by gas. Hand cutshed between car bumpers. Hip bruissed between cur and deer prop. Leg bredsen by fall of tup rock. Leg bredsen by fall of tup rock. They bredsen by humper of car. Thee, finascis cut off between pulley and | chain. |
|--|-------------------------------------|--|--|--|---|--|---|--|---|--|---|--|---|---|--|---------------|
| | | | | | | | | ā | • | | | | | | | |
| | | | | | | | | ourage. I | | | | | | | | |
| Heidelburg, | Henry shaft, | No. 14 shaft, | Prospect shaft, | Henry shaft,, No. 9 shaft,, Consolidated shaft, No. 5 shaft, Coal Brook, | Mineral Spring, Henry Red Ash, Butler, | Prospect shaft, Prospect shaft, Laffin breaker, | Midvale slope, | Henry Red Ash | od slope, | No. 14 shaft, Baltimore No. 5 | No. 14 shaft | No. 14 shaft, Thomas shaft, Heidelburg shaft, | Prospect shaft, | No. 11 shaft, No. 8 shaft, Laurel Run, | No. 14 shaft, Hillman slope, Prospect shaft, Hillman slope, Mineral Spring, Pernwood slope, No. 14 tunnel, | No. 8 shaft, |
| Š. K | M. | M. | vi . | w.Ęw.Ęw | જો જો જો | w w w | M. | T. | M. | n'n | vi. | ZZZ. | οż | NAM. | žožirivio — | r. |
| 26 | 52 | 42 | 83 | 188888 | 12 31 51 | 188 | Si | 80 | 25 | 85 | £2. | 8821 | 200 | 4.666.74 | 28212822 28212822 | - 40 |
| Miner, | Miner, | Miner, | Miner, | Engineer, Laborer, Driver, Laborer, Laborer, | Priver, Laborer, Brakeman, | Driver, Driver, Laborer, | Driver boss, | Miner, | Laborer, Bratticeman, | Runner, | Nummer, | Brakeman, Miner, | Laborer, | Rock miner, Miner, Carpenter, | Miner, Miner, Footman, Driver, Miner, Driver, Miner, Miner, | Laborer, |
| Pollsh, | Polish, | Lithuanian, | Russian, | Irish, Polish, English, Italian, | frish. Polish, | Russian, Pollsh, | American, | Lithuanian, | Italian, | American, | Italian, | Slavonian, Slavonian, Polish, | Russian, | English, American, Wolsh, | American, Polish, Polish, Polish, Folish, American, | Irish, |
| Lawrence Yakla, Esamuel Davis. | ck, | Louis Swiski, | Ignatz Bielskie, | John McCole, Joseph Petrock, Walter Joffries, Frank Sabal, Charles Mazhonis, | Timothey Ryder, I William Sabinski, I James Frodnick, 1 | Andrew Slevanski, I Stanley Stock, I Joseph Rome, 1 | Harry Stout, | Swinchitsky, | Fremino Boracco, | Anthony Fautisky, | | Wm. Surrna, Joseph Stupak, John Kootza, | Bazel Zukofski, | Thomas Luxon, Owen Gardner, James Ladner, Peter Rose, | Martin Kearney, John Boseck, Joseph Savage, Charles Mitchell, John Ziliskey, Pommic Carden, | Martin Lavan, |
| 288 | 38 | 15 | 19 | 119 12 12 12 12 | 2338 | 17 20 20 20 20 20 20 20 20 20 20 20 20 20 | 5. | 61 | G 01 | 10-1 | 12 | 825 | Si | 21-12 | 프로토랑하다 | |
| March | | April | | | | May | | | June | | | | | July | A H BS | Sept. |

TABLE 5.—Continued

| Nature and Cause of Accident in Brief | Both legs broken by flying ceal from blast. Am and barek bruised by being struck Andie breden by fall on rail. Log booken by fall on rail. Log booken by fall on rail. Log booken by fall on rail. Four cershed by a piece of falling arts. Four cershed while unleading machine from cert. Outside. Four the proken by falling under mine certs. Four this bene broken by falling under mine certs. Four this bene broken by a fall of row a blast. Feth's bene broken by a fall of row a blast. For the broken and hip bruised by fall of said a factor in his breats. For cert is bene broken ore burners. Log broken by a rush of culm down shaft. Fingers broken by fall of rows. Log broken and back bruised by fall of nock. Log broken and back bruised by fall of broken and back bruised by fall of lor nock. Log broken and back bruised by fall of driving to an old abandoned breast. Hins bruised by our falling over on him. Edidth less and arm broken by fall from tressling. Outside. |
|---|--|
| County | Luzerne, |
| Name of Mine | No. 5 shaft, No. 14 tunnel, Iaurel tun, Iaurel tun, Iaurel tun, Mineral S P F in g Shaft, No. 14, No. 11 shaft, No. 1 shaft, No. 5 shaft, No. 5 shaft, No. 5 shaft, No. 5 shaft, No. 1 s |
| elgnis to beittaM | है है हैंनेत हम में मंत्रत में है जात्रत मेंत मेंत्रह |
| 93A | = 8 848 ±3 + 448 + 4 8888 |
| Occupation | Miner, Company Laborer, Engineer, Laborer, Company Company Company Miner, Miner |
| ynlieneinaM | Italian, Irish, English, English, Slavonfan, American, Colish, Irish, American, Footsh, Scotch, Scotch, Scotch, Scotch, Irish, I |
| Name of Person | Joseph Niastro, Martin Quinn, Free, Pyart, Charles Sacuski, John Mills. John Verperia, John Verperia, Frank Peroni, Charles Sucko, Felward Carrity, Frank Peroni, Charles Sucko, Felward Carrity, Frank Peroni, Charles Sucko, Felward Carrity, Martick Fenery, Anthony Perkaskie, John Closhy, Andrew Mansok, Andrew Mansok, Andrew Mansok, Andrew Mansok, John Closhy, Martick Mansok, John Closhy, Martick Mansok, John Closhy, Martick Mansok, John Closhy, Martick Mansok, John Closhy, Martick Mansok, John Closhy, John Closhy, John Closhy, John Closhy, Martick Mansok, John Closhy, John |
| tar biron to othat | 으 그 그림은 점심 집 아마는 본 그 출청용력 등로 등표했다. |
| , | Sept. Oct. Becc. |

| saw in shop. | rough trestle | powder. d door. f rock. timber. Wind | |
|--|---------------------------------------|--|---|
| Two fingers cut off by buzz saw in shop. | Arm broken by falling through trestle | at preasts. Outside, Face and hands burned by powder. Leg broken between car and d or. Parifully bruised by fall of rock. Body bruised by falling timber. Wind | blew trestle down. Outside Wrist broken by car. |
| | | : | |
| | | Luzerne, . | |
| | : | Miner, 23 S. No. 5 shaft, Driver, 21 M. Battimore No. 5 Laborer, 31 S. Roll H tunnel, Miner, 31 S. Laftin, | 10. 5, |
| : | : | shaft lore l tunr | ore N |
| No. 14 | Henry | No. 5 Baltim No. 14 Laffin, | Baltim |
| vi | υż | ww. Kw | M. |
| 19 | 18 | 2001 | 13 |
| : | : | | : |
| st, | : | | |
| merican, Machinist, 19 S. No. 14, | rish, Dumper, 18 S. Henry, | Miner. Driver, Laborer Miner, | 26 Michael Zavacky, Slavonian, Miner, 45 M., Baltimore No. 5, |
| Ī | : | | : |
| an, . | | ithuanian, | an, |
| erica | h, | huar glish ish, ish, | voni |
| Λm | Iris | Eng Pol Pol | Sla |
| : | : | | : |
| | : | , , , , , , , , , , , , , , , , , , , | : |
| | | ÷ | acky |
| rk. | urra | Frank Chensk Robert Howe, Joseph Polens Stephen Verne | Zav |
| Cla | N N | nk (| hael |
| Roy | 12 Jerry Murray. | 14 Frank Chenski, 15 Robert Howe 16 Joseph Polenskey 21 Stephen Verner, | Mic |
| Dec. 7 Roy Clark, | 21 | 21 15 15 15 | 97 |
| | | | |

FATAL ACCIDENTS

By Falls of Coal, Slate and Roof

Adam Seader, miner, in Wyoming shaft, Lehigh Valley Coal Company, was instantly killed by a fall of rock, January 5. After returning from firing a blast he commenced to work out the loose coal before he examined his roof, when a large piece of rock and rider coal fell on him.

John Slopka, laborer, in Pine Ridge shaft, Hudson Coal Company, was instantly killed January 6, by a fall of top rock in the gangway caused by slips running through the rock unseen until it fell.

Tony Orelick, miner's laborer, was instantly killed in the Latlin shaft, Hudson Coal Company, January 6, by a large piece of rock falling on him in the shape of a saddle.

falling on him in the shape of a saddle.

Angelo Fetrania, miner, was fatally injured in No. 14 shaft, Pennsylvania Coal Company, February 18. He had returned to face of breast after firing a blast which knocked out two props. While examining in the place he was caught by a fall of roof. He died same day.

John Kozowiski, miner, was instantly killed in the Consolidated shaft, Hillside Coal and Iron Company, February 20. While in the act of pulling down a piece of rock four inches in thickness at face of breast, the pitch being 30 degrees, it fell on him.

James Bradigan, miner, in No. 14 tunnel, Pennsylvania Coal Company, was fatally injured March 1, by a fall of rock from the rib, as he was walking up to the face of breast with his drilling machine. He died after being taken to his home.

Thomas McNulty, miner's laborer, in No. 11 shaft, Pennsylvania Coal Company, was fatally injured April 3. Died April 20, in Pittston Hospital. The miner had fired a blast that discharged two props, and the laborer went up to the face when the roof fell on him.

Patrick Hughes, miner, was instantly killed April 10, in No. 14 shaft, Pennsylvania Coal Company, by a fall of rock. While helping his laborer to load a car with coal, a large piece of rock cut off by

slips fell on him.

William Spudis, miner, was fatally injured in No. 10 shaft, Pennsylvania Coal Company, May 15. He was working in a pitching breast and in returning from firing a blast a large piece of top coal fell and rolled down on him, fracturing his skull. He died same day.

Stanley Mofeski, miner, was fatally injured in No. 5 shaft, Pennsylvania Coal Company, May 19, by fall of rider coal, after returning to face of his breast from firing a blast. Died same day.

Joseph Grilaoski, miner's laborer, in No. 4 shaft, Pennsylvania Coal Company, was instantly killed May 29, by fall of rock at face of breast in Checker vein.

Jacob Chere, miner, in Henry Red Ash shaft, Lehigh Valley Coal Company, was instantly killed June 6. After returning to the face from firing two shots and preparing the third blast, a large piece of top coal fell on him, which had been undermined by the previous blasts.

John Fris, miner, in Hillman slope, Lehigh Valley Coal Company, was instantly killed June 43, at face of his breast by the middle

rock, which he had undermined five or six feet. He had been told by the fire-boss to take it down before he did any work.

Scot Carkhuff, company laborer, in No. 1 Red Ash shaft, Lehigh Valley Coal Company, was fatally injured June 13, by fall of top rock while engaged in loading up refuse along the gangway road. He died June 15.

John Frank, miner's laborer, in Butler Checker vein slope, Hillside Coal and Iron Company, was instantly killed on June 19, at face of his breast by fall of rock caused by the rock running to a feather

edge all around it.

John E. Burke, miner, in No. 14 tunnel, Pennsylvania Coal Company, was fatally injured June 23, by fall of top rock. He had fired a blast in this rock to bring it down, but it did not come, and he prepared to drill another hole when it fell and caught him. He died after being taken to his home same day.

Daniel Giabbarresi, miner's laborer, in No. 8 shaft, Pennsylvania Coal Company, was instantly killed July 20, at face of breast, by a

fall of rock while standing on bottom bench of coal shoveling.

Carlo Corsorzo, miner's laborer, in No. 14 shaft Checker vein, Pennsylvania Coal Company, was instantly killed August 2, while walking along the gangway road to his work in the morning. The piece of rock was only about 150 pounds in weight and in shape of a bell.

Lewis Vesoskie, miner, in No. 14 tunnel, Pennsylvania Coal Company, was instantly killed August 30. While taking out the pillars in the top lift of the Baltimore vein, he told his laborer to listen as he thought he heard the roof working. He then went up along the

pillar to investigate when a large piece of roof fell on him.

John Timkovitch and John Tutanto, miner's laborers, in Henry Red Ash shaft, Lehigh Valley Coal Company, were instantly killed September 2, while engaged in loading a car with coal at face of breast. The miner had just left the face to make up a charge of powder, when a slab of rock fell on both laborers.

Anthony Chichonok, miner, in Ridgewood slope, Traders Coal Company, was instantly killed September 6, by a fall of coal and rock at

the face of his breast. He should have taken it down.

Louis Hoshila, miner's laborer, in No. 14 shaft, Pennsylvania Coal Company, was instantly killed September 13, by a fall of rock at the face of his breast. The miner told him to get back as the roof was working, which it appears he did, but he returned to the face for some cause not known and was caught by falling rock.

Adam Telinski, miner, in No. 14 shaft, Pennsylvania Coal Company, was fatally injured September 30. While throwing back rock in the gob at the face of his breast a slab of rider coal and rock fell

on him. He died next day in the Hospital.

Casper Sdaja, miner's laborer, in Baltimore No. 5 shaft, Delaware and Hudson Company, was instantly killed October 4, by a fall of rock. Hearing the roof working, he started back from the face and was caught by the rock.

William Reese, miner's laborer, in Mineral Springs, Red Ash shaft, Lehigh Valley Coal Company, was instantly killed October 17. He was working on night-shift when a piece of rock fell on him.

John Shuta, miner's laborer, in Hillman slope, Lehigh Valley Coal Company, was fatally injured by a fall of rock and died November 7, in City Hospital. While helping his miner to drill a hole in face

of his breast a large piece of fire clay rock fell on him.

Joseph Buchak, miner, and Michael Zinch, laborer, in Mineral Spring, Red Ash shaft, Lehigh Valley Coal Company, were instantly killed November 21, by a fall of rock. They were driving a gangway, and in the morning about 7.20 were in the act of tamping a hole when a large piece of rock fell from the roof on them.

Simon Struka, miner, in the Prospect shaft, Lehigh Valley Coal Company, was instantly killed December 5, at the face of his breast by a fall of roof rock. The rock was cut by slips or seams on three

sides which caused it to fall.

Frank Starne, miner's laborer, in No. 14 shaft, Pennsylvania Coal Company, was fatally injured December 6, by a fall of rock at face of his breast. The fire-boss called the attention of the miner to this rock and told him to take it down, which it appears he neglected to do.

William Rutledge, miner's laborer, in No. 14 tunnel, Pennsylvania Coal Company, was instantly killed December 16, by fall of bony coal in the face of airway. This bony coal is kept up for roof, as the rock above is bad generally. In this instance the bony coal was very slippery, causing it to fall.

George Mergo, miner's laborer, in the Wyoming shaft, Lehigh Valley Coal Company, was instantly killed December 13, by fall of roof rock at face of breast. Andrew Barella, miner, was told by the

fire-boss to take this rock down, but neglected to do so.

Andrew Barrilla, miner, in Wyoming shaft, Lehigh Valley Coal Company, was instantly killed December 28, by fall of rock at face of his breast. The piece of rock that fell was cut off all around it by slips.

By Mine Cars

Frank Supavitch, driver, was killed April 19 in the Henry shaft, Lehigh Valley Coal Company, while driving a loaded trip of cars to a passing branch. He stooped to unhitch the stretcher and fell in front of cars.

Michael Kenny, company laborer, outside, at Pine Ridge, Hudson Coal Company, was instantly killed June 20, while unloading a railroad car of condemned coal above the breaker. The car loaders were running an empty car under the breaker to load it, when it ran away on account of bad brakes, and struck the car Kenney was in, knocking him through the door in the bottom of the car and killing him.

George Rowe, miner, and Steve Beduar, laborer, were instantly killed in the Baltimore No. 5 shaft, Delaware and Hudson Company, July 3, by a water car becoming uncoupled on slope and running to the face where the men were at work. The slope runner failed to put the head on the track after he came up with his trip.

Thomas Mitchell, slope footman, in Heidelburg No. 2 Marcy slope, Lehigh Valley Coal Company, was instantly killed August 1, by an

empty trip of cars that jumped the track.

Charles Caruth, outside carpenter, at the Henry colliery, Lehigh Valley Coal Company, was instantly killed September 29, while uncoupling cars from the locomotive by falling on the track in front of a car.

Carmani Antone, car runner, inside, Clarence slope, Clarence Coal Company, was instantly killed December 15. While standing on the gangway at foot of back branch he called to the miners on the main road to draw the blocks and let the car come. The miners on the back branch thought he was calling to them and let their car go which caught him between two cars.

By Gas

Thomas F. Kerby, fire-boss, in No. 14 shaft, Pennsylvania Coal Company, was fatally burned by gas June 5, and died next day at his home. He went into a breast that had been idle to make an examination. He got on top of the bottom bench and when testing the gas his light went out. He struck a match to relight his lamp and ignited the gas.

John Kelley, rockman, in No. 11 shaft, Pennsylvania Coal Company, was fatally burned by gas July 6, and died July 10. After firing a cut in the rock tunnel where he was working, he returned to examine what the blast had done and ignited the gas the cut had

liberated.

Stanley Zelensky, brattice man, in the Midvale slope, Lehigh Valley Coal Company, was instantly killed by an explosion of gas, August 3, in the bottom lift of the Hillman vein in the abandoned workings. He was sent to build a door, and to get the boards he entered the old workings where a long brattice was standing and came in contact with gas. Having an open light it ignited the gas. He was ordered by the fire-bosses in the morning to get his boards in the lift he was going to build the door in.

James Killew, miner, in No. 6 shaft, Pennsylvania Coal Company, was fatally burned by gas August 19, while engaged in driving a cross cut to airway. He was given a safety lamp to examine the place, but after firing a blast he sat down at his box for over a half hour and then returned to make an examination with his open light

and ignited the gas. He died August 27.

George Usvick, miner, in No. 14 shaft, Pennsylvania Coal Company, was fatally burned October 5, and died in City Hospital, October 11. This miner's breast was idle for a few days on account of lines being put up and fire-boss told him not to go in again until he was notified. He did, however, and ignited the gas with his open light.

By Powder and Dynamite

John Moroghoni, miner, in Laffin shaft, Hudson Coal Company, was fatally burned by powder March 10, and died same day. While making up a charge of powder with his lamp on his head a spark fell into the powder keg and exploded it.

By Blasts, Etc.

Anthony Karpinski, miner, in Prospect shaft, Lehigh Valley Coal Company, was killed January 28, while trying to fire a blast which had missed five times. He charged the hole, in which he had a cap, with black powder and dynamite.

Anthony Zereevewisk, miner, in Consolidated slope, Hillside Coal and Iron Company, was instantly killed May 5, while driving a cross-cut through to the adjoining breast. The miner in the adjoining breast fired a blast that blew through and caught Zereevewisk.

Anthony Barth, miner, in No. 9 shaft, Pennsylvania Coal Company, was fatally injured August 19, and died same day. He thought the fuse had not ignited and attempted to light it. The blast exploded and fatally injured him.

Andrew Popushak, miner's laborer, in Laffin shaft, Hudson Coal Company, was fatally injured September 6, and died September 9. His miner was going to fire a blast on the pillar and sent him to give warning to the men in the adjoining breast. He did so, but stood in front of the hole and was struck by the flying coal.

George Zelonis, miner, in Fernwood slope, Hillside Coal and Iron Company, was fatally injured November 24, and died December 16. While tamping a hole in coal at face of breast the charge exploded on him.

John Trolley, miner, in Henry shaft, Lehigh Valley Coal Company, was fatally injured December 5, and died December 10. When about to fire a blast charged with sticks of dynamite and twelve inches of black powder, he retired to a safe place until the powder exploded, but returned before the dynamite exploded and was caught in the blast.

By Falling Down Shafts, Etc.

Frank Smith, miner, in No. 14 shaft, Pennsylvania Coal Company, was instantly killed September 27, by stepping from the cage at the surface landing and falling into the shaft. He evidently thought he was at the bottom and stepped off.

Michael Pavolski, miner's laborer, Laflin shaft, Hudson Coal Company, was instantly killed December 6 by falling from the cage while coming up the shaft with eight other men. He had a pick on his shoulder that caught under a bunton in the shaft dragging him from the cage.

By Machinery

Ralph Sodon, slate picker, Henry washery, Lehigh Valley Coal Company, was instantly killed January 13, by falling on revolving screen in breaker. This boy left his place of employment and took a short cut to go to the dump and in doing so climbed over the fence around the screens and in some manner fell on the screen.

David Jeffieries, bell boy, Avoca washery, Avoca Coal Company, Limited, was instantly killed February 27, by falling into a pair of pony rolls. He got into the chute where the slate and culm were conducted into the rolls and in some manner slipped into them. The rolls were covered and why he went near them is not known.

William Vaull, slate boss, in Laffin breaker, Hudson Coal Company, was instantly killed June 21. The rope that operated the patent slate pickers in the picking room of the breaker came off the pulley, and when the slate boss picked it up to fasten it to a beam overhead his foot caught in it and he was drawn around the pulley shaft.

By Suffocation

Anthony McAndrew, slate picker, No. 10 breaker, Pennsylvania Coal Company, was suffocated November 15, by being drawn down through the buckwheat coal chute. About noon he left his place of occupation and opened a door leading to where the coal goes into the pocket. The loaders under the breaker were drawing coal out of the pocket at the time and he was drawn down.

By Mules

James Shields, team driver, in Clarence slope, Clarence Coal Company, was fatally injured October 12, by a kick from one of the mules he was driving. He died November 6.

Miscellaneous Causes, Outside

James Ross, engineer, at No. 14 shaft, Pennsylvania Coal Company, was fatally burned by steam January 30, and died same day at his home. He was on the night shift, and about $3.12~\Lambda$. M. the firebosses came to him and told him they were ready to go down the shaft. He opened the throttle valve and when the steam entered the cylinders the heads of both cylinders blew off, wrecking the engine room and enveloping him in steam. The cylinders were evidently filled with water.

Frank Youckavige, driver, on the rock dump, Delaware colliery, outside, Delaware and Hudson Company, Was killed October 3, by falling from the back of a mule as he went through the street in Hudson after working hours. I did not consider this a mining accident and did not charge it as such in my report.

CONDITION OF COLLIERIES

PENNSYLVANIA COAL COMPANY

Nos. 1, 8, 9, 10, 4, 7 and Hoyte.—Condition good as to safety, drainage and ventilation.

Nos. 11, 5 and 6.—Condition safe, drainage good, ventilation fair. No. 14 shaft and No. 14 tunnel.—Condition good as to safety, drainage and ventilation.

LEHIGH VALLEY COAL COMPANY

Prospect and Oakwood.—Condition good as to safety, drainage and ventilation.

Midvale, Hillman and Henry.—Condition as to safety good; drainage and ventilation fair.

Wyoming and Five Foot slope.—Condition good as to safety, drainage and ventilation.

Heidelburg slopes.—Condition as to safety good, drainage fair, ventilation good.

Heidelburg shaft.—Condition as to safety good, drainage fair, ventilation fair,

Mineral Spring Colliery.—Condition as to safety good, drainage fair, ventilation fair.

HILLSIDE COAL AND IRON COMPANY

Consolidated slope.—Condition as to safety good, drainage fair, ventilation fair.

Consolidated shaft.—Condition good as to safety, drainage and ventilation.

Butler, Checker and Marcy slopes and Thomas shaft.—Condition good as to safety, drainage and ventilation.

Fernwood Slope and Tunnel.—Condition as to safety good; drainage and ventilation fair.

DELAWARE AND HUDSON COMPANY

Baltimore tunnel.—Condition good, ventilation and drainage good. Baltimore No. 2 shaft.—Condition, drainage and ventilation good. Baltimore No. 5. - Condition, drainage and ventilation good.

HUDSON COAL COMPANY

Pine Ridge shaft.—Condition fair as to safety, drainage and ventilation.

Laurel Run.—Condition as to safety good, drainage and ventilation fair.

Laffin shaft and tunnel. - Condition as to safety good, drainage and ventilation fair.

TRADERS' COAL COMPANY

Ridgewood slope.—Condition as to safety good, drainage and ventilation fair.

AVOCA COAL COMPANY, LIMITED

Avoca shaft.—Condition as to safety good, drainage fair, ventilation bad.

CLARENCE COAL COMPANY

Clarence slopes. Condition as to safety good, drainage and ventilation fair.

IMPROVEMENTS

PENNSYLVANIA COAL COMPANY

Pennsylvania.--At No. 10 Colliery a power plant for electric haulage and lighting has been installed; a McEwen 20x18 inches centre crank engine directly connected to 215 K. W. compound generator of the general electric type; four 75 ton electric mine locomotives to be used in the Marcy and Red Ash veins.

A tunnel was driven from No. 10 Marcy to the Pittston vein in No. 9 shaft to transport the coal from No. 9 to No. 10 shaft; a tunnel was also driven from No. 9 Red Ash to No. 10 Red Ash vein for trans-

portation.

LEHIGH VALLEY COAL COMPANY

Mineral Spring Colliery.—Surface Coal road 4000 feet long from Coal Brook slope to tunnel No. 34.

Tunnel No. 34 driven 200 feet from surface to Red Ash vein.

Nos. 29, 36 and 37 turnels driven from inside slope Coal Brook through fault or overturn to main south dip in Red Ash vein.

Tunnel No. 35 being driven through same fault on upper lift.

No. 33 Tunnel driven through over turn basin in Mineral Spring shaft district, Red Ash vein.

Inside slope extended in Red Ash 600 feet.

Rope hole completed to Red Ash vein.

300 H. P. return tubular boiler installed at Coal Brook.

Breaker has been equipped with mechanical pickers.

William Crusher, new bore holes and pipe lines extended, taking care of all the silt and refuse from breaker.

New 20 foot double intake Guibal fan driven by Corliss engine.

Brick house.

Henry Colliery.—300 H. P. B. and W. water tube boiler installed.

New 25 foot double intake fan driven by Corliss engine.

Concrete air shaft completed in Five Foot vein.

New 25 foot double intake fan driven by Corliss engine, brick house, completed in Red Ash shaft.

New 16x24 hoist engine and brick house completed and Five Foot slope reopened.

New second outlet completed in Borroughs tract, Five Foot vein.

Two tunnels with second outlet completed in Red Ash shaft district.

New inside barn completed in Red Ash.

New brick overcast, empty car foot turnout, column and steam lines installed in Red Ash shaft.

Rock slope completed in Wyoming shaft district, from lower Baltimore to Skidmore vein,

Rock slope from Baltimore to Skidmore vein completed in Henry shaft district.

Nos. 21, 22 and 23 subslopes started in Red Ash district.

Prospect Colliery.—300 H. P. B. and W. water tube boiler added to the plant, brick house.

New inside barn Red Ash.

New electric transportation outfit has been installed consisting of one 175 K. W. 250 volts generator, directly connected to 20x18 McEwen engine, 225 R. P. M.

Two electric locomotives installed in Red Ash and Baltimore.

William crusher and extension of silt lines.

Additional mechanical pickers in breaker.

Additional fire emergency pump 16x10x16.

Laffin.—No. 4 plane, bottom split Red Ash, extended 900 feet in rock and coal.

No. 3. plane, bottom split Red Ash, extended 230 feet,

Pine Ridge.—No. 31 tunnel driven from Rock to Hillman 240 feet. No. 12 slope Rock vein extended 650 feet and pair of 12x16 inchengines installed.

Pair of 8x12 inch engines installed for sinking No. 13 slope in Hillman vein.

Pair of 8x12 inch engines installed for sinking No. 14 Kidney slope. Laurel Run.—No. 11 tunnel extended 750 feet toward Red Ash vein. Haulage road toward Pine Ridge driven 950 feet in Checker vein. New 28 foot Guibal fan installed, but as yet not in commission. The laurel Run breaker was abandoned August 1, and all coal from this colliery prepared at Pine Ridge breaker.

Baltimore No. 2.-No. 7 slope extended 950 feet Red Ash vein.

No. 8 slope extended 650 feet Red Ash vein to limit. The haulage road for transportation of No. 2 coal to Baltimore No. 5 shaft has been completed and equipped with electric motor. The haulage is 3,400 feet long. 40x12 inch engines installed on No. 4 slope Baltimore vein.

DELAWARE AND HUDSON COMPANY

Baltimore Tunnel.—No. 6 slope Red Ash vein extended 250 feet. New breaker at Baltimore tunnel equipped with machinery using electricity as power. Began operation December 1.

Baltimore No. 5.—No. 1 slope extended 1,600 feet. No. 2 tunnel driven 175 feet to bore hole for culm flushing. New electric power plant installed to furnish power for the Baltimore tunnel breaker and other uses as required.

HILLSIDE COAL AND IRON COMPANY

Butler Colliery, Outside. - New office was built 30x30x21 and new barn for stock, 32x110x21—6.

Thomas Shaft, Butler Colliery.—Rock plane 250 feet long area 7x12 feet from bottom Red Ash to top split of Red Ash. This plane will be continued in the top split as a steam plane, and will also work the coal in the bottom split as a slope below the shaft level.

The fan at Chapman shaft has been replaced with another and larger fan, 4x16 feet, which is being driven with an electrical motor.

Marcy or Butler Slope, Butler Colliery.—The main slope has been extended a distance of 750 feet further toward the basin in the Marcy vein.

Checker Slope in what is known as the Checker vein, Butler colliery. At a point 950 feet from head of slope, a rock fault was encountered, and after proving ground by bore holes, it was decided to drive through the fault, a distance of 550 feet to strike the coal on the other side. This has been completed and the total depth of the slope is now about 1,800 feet.

Fernwood Colliery, Outside.—Blacksmith, carpenter and machine shop erected, 24x68x20. New supply house, 18x18x16, with fire-proof oil house addition, tanks and pumps for handling the oil. A new barn for stock, 32x112x19-6, has been erected. The fan and fan engine house at No. 1 slope was torn down and rebuilt, and the fan engine changed, and is now in first class condition.

Consolidated Slope,—An additional gravity plane, 7x12x300 long has been driven in Stark vein. A duplex plunger pump, 20x10x36 has been installed for the purpose of furnishing water to the washery.

Consolidated Colliery, Outside. Boiler house at breaker enlarged

and two 150 H. P. return tubular boilers installed.

What is known as the annex to the breaker has been changed and converted into a washery for the purpose of preparing the small sizes from the breaker and also washing out what is known as the "Consolidated culm dump."

Mine Foremen's Examinations

The examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held on the 8th and 9th of May, at Pittston.

The board of examiners was Hugh McDonald, Mine Inspector; James J. McCarty, Superintendent; John J. Morahan and Evan R. Morgan, miners.

The following applicants were recommended for certificates:

Mine Foremen

John J. McNulty, John H. Williams, William F. Golden, Edward J. Keating, Francis J. Dohrer and David P. Williams, of Pittston; Daniel Halpin, Cornelius G. Bumbee and Thomas Hooper, of Wyoming; Frank Doran, William B. Mitchell, George F. Carey, Daniel Thomas, Joseph Llewellyn, Martin McGowan and James J. Merrick, of Avoca; James W. Page, Scranton, John J. Cawley, David McDonald, Luzerne; James Gobin, Inkerman; William White, Kingston; Frank Kettle, Plymouth; John H. Farrell, Duryea.

Assistant Mine Foremen.

William C. Fairclough, Daniel C. Thomas, Joseph P. Gates, William Fowler, Dennis Rabbitt, Thomas Walsh, John Kelley, Pittston; John M. Thomas, Dupont; Lewis S. Smith, Plainsville; Thomas H. Thomas, Plymouth; Richard W. Lavelle, Miners Mills; Patrick McDonnell, Forty Fort; Anthony J. Lokushek, Hudson; John S. Williams, Luzerne.



Sixth District

LUZERNE AND SULLIVAN COUNTIES

Kingston, Pa., March 1, 1906.

Hon, James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of herewith transmitting to you my annual report as Inspector of Mines for the Sixth Anthracite District for the year ending December 31, 1905.

The quantity of coal produced during the year was 4,630,053 tons. The number of fatal accidents was 43 inside and 2 outside. The report contains the statistical information as required by law and a tabulated description of the fatal and non-fatal accidents that occurred during the year, with other useful information.

Respectfully submitted,

P. M. BOYLE, Inspector.

SUMMARY OF STATISTICS

| Number of collieries, | 24 |
|--|-----------|
| Number of mines, | 40 |
| Number of mines in operation, | 40 |
| Number of tons of coal shipped to market, | 4,125,912 |
| Number of tons used at mines for steam and heat, | 409,906 |
| Number of tons sold to local trade and used by em- | 100,000 |
| ployes, | 94,235 |
| Number f tons produced, | 4,630,053 |
| Number of tons produced by electrical machines (Un- | 1,000,000 |
| dercutting), | 156,890 |
| Number of persons employed inside of mines, | 8,285 |
| Number of persons employed outside, | 3,151 |
| Number of fatal accidents inside of mines, | 43 |
| Number of fatal accidents outside, | 2 |
| Number of non-fatal accidents inside of mines, | 99 |
| Number of non-fatal accidents outside, | 13 |
| Number of tons of coal produced per fatal accident in- | |
| side, | 107,676 |
| Number of persons employed per fatal accident inside,. | 193 |
| Number of persons employed per fatal accident outside, | 1,576 |
| Number of persons employed per non-fatal accident in- | , |
| side, | 84 |
| Number of persons employed per non-fatal accident out- | |
| side, | 242 |
| Number of wives made widows, | 22 |
| Number of children orphaned, | 36 |
| Number of steam locomotives used inside of mines, | 2 |
| Number of steam locomotives used outside, | 16 |
| Number of compressed air locomotives used inside, | • 3 |
| Number of electric motors used inside, | 17 |
| Number of fans in use, | 38 |
| Number of gaseous mines in operation, | 23 |
| Number of non-gaseous mines in operation, | 17 |
| Number of new mines opened, | 1 |
| Number of old mines abandoned, | 2 |
| | |

TABLE A

PRODUCTION OF COAL

| Names of Operators | Tons |
|---|-------------|
| Lehigh Valley Coal Company, | 1,116,775 |
| Temple Iron Company, | 830,031 |
| Pennsylvania Coal Company, | 626,737 |
| Kingston Coal Company, | 516,247 |
| Clear Spring Coal Company, | 344,260 |
| Delaware, Lackawanna and Western Railroad Company, | 167,784 |
| Stevens Coal Company, | 167,546 |
| Connell Anthracite Coal Company, | 156,890 |
| Raub Coal Company, | 136,955 |
| People's Bank of Wilkes-Barre, Receiver (Black Diamond) | 133,170 |
| Delaware and Hudson Company, | 114,481 |
| Northern Anthracite Coal Company, | $109,\!421$ |
| W. G. Payne Coal Company, | 103,931 |
| Robertson and Law Coal Company, | 61,995 |
| Reliance Coal Company, | $25,\!289$ |
| Troy Coal Company, | 7,623 |
| W. B. Gunton Coal Company, | 6,900 |
| Randall and Shaad Coal Company, | 4,018 |
| Total, | 4,630,053 |
| Production by Counties | |
| Luzerne, | 4,352,824 |
| Sullivan, | 277,229 |
| Total, | 4,630,053 |

TABLE B.-Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed per accident

| | her non-tatal accident | In ion i in ion |
|---------------------|--|--|
| əpis | Number of employes out | 135 168 168 168 168 178 178 178 178 178 178 178 178 178 17 |
| əbis | Number of employes in: per non-fatal accident | 88 BESTERSTERS BESTER B |
| abia | Number of employes out | 33.6 1, 576 |
| əbia | Number of employes in per fatal accident | 112 2010 2010 2010 2010 2010 2010 2010 |
| | Total number of employee | 11.176.2 8.11 1.176.4 8.11 1.176.4 8.66 8.66 8.66 1.176.6 1.17 |
| ebi | Number of employes outs | 673 837 837 837 130 130 130 114 114 114 62 115 63 64 65 115 65 116 65 117 117 117 117 117 117 117 117 117 11 |
| 9 | Number of employes insid | 1, 617 1, 135 1, 135 8, 197 8, 197 1, |
| per | Tons of coal produced fatal accident inside | 42, 953 313, 369 114, 753 114, 753 114, 753 114, 753 114, 753 116, 297 110, 847 110, |
| per | Tons of coal produced belong the fatal | 159, 539 (9, 169 313, 369 313, 369 129, 662 38, 251 167, 784 167, 784 167, 784 16, 585 16, 585 16, 995 107, 676 |
| dents | fajoT | £ 8 0 0 0 0 10 4 0 0 0 4 10 H 10 H 10 11 1 2 |
| Non-Fatal Accidents | əbistuO | TO 2001 11 11 11 12 12 |
| Non-Fa | əbisal | \$200 1 1 00 00 00 00 00 1 1 0 0 0 0 0 0 0 |
| | IstoT | ® 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 |
| Fatal Accidents | əbistuO | 61 |
| Fata | 9pisu1 | [- 집에+©==에=에= = 다 |
| | Names of Operators | Temple Iron Coal Co. Temple Iron Coal Co. Temple Iron Coal Co. Rousston Coal Co. Clear Spring Coal Co. Clear Spring Coal Co. Compel Anthractic Coal Co. Runch Coal Co. Runch Coal Co. Runch Coal Co. Runch Coal Co. Runch Coal Co. Runch Coal Co. Runch Coal Co. Runch Coal Co. Runch Coal Co. Runch Coal Co. Runch Coal Co. Rough Coal Co. Northern Anthractic Coal Co. Northern Anthractic Coal Co. Northern Anthractic Coal Co. Northern Anthractic Coal Co. Northern Anthractic Coal Co. Northern Anthractic Coal Co. Northern Anthractic Coal Co. Northern Anthractic Coal Co. Northern Anthractic Coal Co. Northern Anthractic Coal Co. Northern Anthractic Coal Co. Anterior Coal Co. Troy Coal Co. Alsord Coal Co. Alsor |

TABLE C.-Classification of Fatal Accidents Inside and Outside of Mines

| | Months | | | | | | | | | | | | | | |
|---|-------------|----------|---------|-------|---------|------|------|--------|---|---------|----------|----------|---------------------------------------|--|--|
| 'Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Total | Percentages | |
| Falls of coal, Falls of roof, Mine cars, Explosions of gas and dust, Explosions of powder and dynamite, Premature blasts, Falling into shafts, Miscellaneous, | 1 1 2 | | 2 1 1 7 | 1 1 1 | 1 1 1 1 | 1 | 1 | 1 | i :::::::::::::::::::::::::::::::::::: | 3 | 1 | 2 | 1 15 5 6 1 4 9 2 | 2.33 34.88 11.63 13.95 2.33 9.30 20.93 4.65 | |
| Totals, | | 1 | 11 | 3 | 4 | 3 | | 1 | 2 | 3 | == | 6 | 43 | 100 | |
| Causes of Accidents Outside Machinery, | | 1 | 1 | | | | | | | | | | 2 | 100 | |
| Totals, | | 1 | 1 | | | | | | | | | | 2 | 100 | |
| Grand totals inside and outside, | 6 | 2 | 12 | 3 | 4 | 3 | 1 | 1 | 2 | 3 | 2 | E | 45 | 100 | |

TABLE D.-Classification of Non-fatal Accidents Inside and Outside of Mines

| | === | === | | ==: | | -== | | | | | == | ==: | | |
|---|---------|---|--------------------------------------|---------------------------------|---------------------------------------|--|---|----------------------|---------------------------|-------------|-------------------------------------|----------|---|---|
| | | | | | | | M | onth | s | | | | | |
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Total | Percentages |
| Falls of coal, Falls of slate, Falls of roof, Mine cars, Explosions of gas and dust, Explosions of powder and dynamite, Premature blasts, By mules, Machinery, Miscellaneous, Totals, | 3 | 3 1 1 1 1 1 8 | 2 2 3 1 10 == | 1 1 1 2 4 == | 1 3 1 2 4 15 == | 2 1 3 5 2 1 14 == | 1 2 2 2 1 2 8 == | 2 1 1 1 | 1 4 2 1 8 | 2 2 2 | 1 3 3 1 9 == | 3 4 8 == | 12 1 19 22 17 7 5 3 2 11 | 12.12 1.01 19.19 22.22 17.17 7.07 5.06 3.03 2.02 11.11 |
| Causes of Accidents Outside Cars. Machinery. Miscellaneous. Totals. | 1 | · · · · · · · · · · · · · · · · · · · | 1 -1 | | 1 1 2 | 1 1 | 2 1 | 2 | 2 | 1 1 | | | 5 5 3 | 38.50 38.50 23.00 |
| Grand totals inside and outside, | 7 | | 11 | 4 | 17 | 15 | 11 | 6 | 10 | 6 | 9 | 8 | 112 | 100 |

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

| | | | | | | N | Iont: | hs | | | | | |
|----------------------|-----------------------|----------|-------------------|-------|-----|------|------------------|--------|-----------|------------|----------|----------|------------------------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Total |
| | 5 1 6 == | | 9 2 11 | | | | 1 1 == | 1 1 | 1 | 1 2 | 1 1 | 4 1 1 1 | 28 9 3 1 2 |
| Slatepickers (boys), | | 1 | 1 1 -12 | 3 | | | | | | | | | 1 1 2 |

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|--|-----------------|----------|-----------------|-------|----------|--------------------------|------------|------------------------------|-------------|---------------------|---------------------------------------|----------|---|
| | January | February | March | April | May | June | July | August | September | October | November | December | Total |
| Inside Fire bosses and assistants, Miners, Miners' laborers, Drivers and runners, Doorboys and helpers, Company men, All other employes, Totals, | 4 2 | 5 1 1 | 4 3 3 | 1 1 2 | 4 5 1 15 | 6 4 2 2 | 3 1 4 | 3 1 4 ===== | 3 2 1 2 8 5 | 3 1 5 | 2 4 1 1 | 1 3 4 | 1 44 21 1 1 1 9 2 - |
| Outside Blacksmiths and carpenters, Engineers and firemen, Slatepickers (men), All other employes, Totals, Grand totals inside and outside, | 1 - 1 | | 1 | | 1 2 2 17 | 1 1 -15 | 3 3 | 1 1 2 | | 1 -1 -6 | · · · · · · · · · · · · · · · · · · · | | 1 1 2 9 13 |

TABLE G .- Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

| American 1 1 2 2 1 Fnglish 1 1 1 Welsh 1 1 1 Irish 1 1 1 German 1 1 1 | | Months | | | | | | | | | | | | |
|---|---|------------|----------|--------|-------|-----|------|------|--------|---|---------|----------|-------------------|----------------------------------|
| Finglish | | January | February | March | April | May | June | July | August | | October | November | December | Total |
| | Fnglish Welsh Irish German Polish Hungarian Italian Lithuanian Austrian Russian | 2 1 | 1 1 | 1 9 | 2 | 1 | 1 | | | 1 | 3 | 1 | 1 1 1 1 1 1 1 1 1 | 20 1 3 3 1 1 1 |

TABLE H.-Nationality of Persons Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|--|-----------|---|-----------------|-------|-----|-------------------|-------|--------------------------|---|---------|----------|-----------|---|
| | January | February | March | April | May | June | July | August | September | October | November | December | Total |
| American. English. Welsh. Scotch. Irish. German. Polish. Hungarian. Italian. Slavanian. Lithuanian. Austrian. Russian. Hebrew. Totals. | 1 3 1 1 7 | 1 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 4 1 2 | | 1 | 1 1 2 5 5 1 1 1 5 | 3 4 1 | 1 1 3 1 | 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 3 1 2 6 | 3 1 2 | 1 1 1 1 8 | 222 33 11 77 55 35 26 14 10 11 33 |

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each person per minute

| Average number of cubic f.et per minute provided for each person | 249 549 575 | 384 579 443 | 381 266 716 | 468 | 332 | 101 |
|--|--|--|---|------------------------|-----------------------------------|--|
| Number of persons employed | 2 4 1 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 284 56 71 | 5.53 | 128 | 446 | 193 |
| Number of cubic feet per minute passing out at out- let | 132,910 96,300 108,800 | 143, f65 454, 490 77, 725 | 34,840 51,300 32,900 | 138,000 | 156, 695 94, 900 144, 150 | 22,4°0 |
| rog ris to visinang lesoT lis ni gnitsinorio etunim toot ped principal princ | 103 541 68, 700 75, 800 | 109,000 32,407 31,440 | 26, 670 29, 90) 17, 900 | 60,000 | 139,956 83,500 131,900 | 78.000 |
| Number of cubic feet of air per of sir charactering the minute at inlet | 121,835 84,400 95,900 | 132,342 41,785 62,595 | 31, 220 49, 600 32, 000 | 115,000 | 144, 581 93, 200 143, 000 | 85,420 93,700 |
| Number of splits of air cur- | 90100 | 5000 | C1 C2 F4 | * | - t- t- | 413 |
| Power used | Steam, Steam, | Steam, | Steam, Steam, | Steam, | Steam, Steam, | Steam, |
| Vame of fan | Guibal, Guibal, Guibal, | Guibal, Guibal, Guibal, | Guibal Guibal | Guibal, | Guibal, Guibal, | Guibal |
| Water gauge developed-in | 61 60 60 | 031010 | 10 | 1.4 | 1.8 | H.rc. |
| Number of revolutions per | 92 09 | 180 | . 888 | 08 | 868888 | 09 |
| Depth of biades in feet | 5.10 5.11 6.7 | 6.10 5.8 16 | 5.6 | 4.7 | 5.0 | 0.00 |
| Width of blades in feet | 6.8 5.11 6.11 | 8.11 5.11 1.8 4.0 | 5.6 | ı.o | 6.4.6.0 | 9.9 |
| Diameter of fan in feet | 888 | 88°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°° | ଛଛଛ | 16 | 8118118 | 20 |
| Method of ventilation | 2 fans, Fan, | 2 fans, Fan, | Fan, Fan, Fan, | Fan, | 2 fans, | Fan, |
| Gaseous or non-gaseous | Gaseous, Gaseous, Gaseous, | Gaseous, Non-gas. Non-gas. | Gaseous, Gaseous, | Non-gas. | Gaseous, Gaseous, Gaseous, | Gaseous, Gaseous, |
| Kind of opening | Shaft, Shaft, Shaft, | Shaft, Tunnel, | Shaft, Shaft, | Tunnel, | Shaft, Shaft, | Shaft, |
| Names of Operators and Mines | Lehigh Valley Coal Co. Exeter Colliery— Pled Ash, Plutston and Marcy, Knight and Checker, | Maltby Colliery— Maltby, Mountain tunnel, Four Foot, | Seneca Colliery— Twin, Coxey, Pittston, | Westmoreland Colliery— | Mt. Lankout, Forty-Fort, Harry E. | Pennsylvania Coal Co. Barnum Colliery— Barnum No. 2. Barnum No. 3, |

| 410 | 4.10 | 1 0 | | 900 | 00 | 0 - 0 - 0 | | 1 -10000 | 1 9 | | es | t- |
|--|---------------------------------------|-----------------------|---|---|--|--|---|---|------------------------------|---------------------|--|--------------------|
| 325 | | | 8 |] | 1 1 | 169 191 913 500 | | | 406 | - 11 | 333 | 147 |
| 105 | 3.4 | 462 | 231 | 173 | 140 | 9 23 9 83 | 184 | 2882 | 106 | 141 |] 57 | 70 |
| 89,000 | 14,556 112,445 | 205,000 | 264, 220 | 92, 235 85, 355 | 50,900 | 30, 500 25, 000 22, 0. 0 55, 000 | 102,600 | | 44,000 | 126.600 | 18,600 | 19,150 |
| 69,800 | 113,980 | 175,000 | 198, 250 | 83, 325 | 37,500 | 14, 660 18, 0-0 21, 060 49, 600 | 36,400 | 48,600 14,800 22,800 | 43,000 | 80,900 | 10,000 | 10,340 |
| 78,600 | 130, 450 93, 969 | 190,000 | 226, 820 | 92,383 85,383 | 43,20) | 29, (0) 32, 000 50, 040 50, 000 | 89,60) | 102,800 14,6 0 23,600 | 44,000 | 122,000 | [18,000 | 11,900 |
| en | (- t- | 2 | 91 | 4.00 | 61 | | 4 | 1 20 :: | 61 | 9 | 67 | - |
| Steam, | Steam,] Steam,] Steam, | Steam, | Steam,.] | Steam | Steam, | Steam | Steam, | Steam, | Steam, | Steam, | Steam | |
| Guibal, | Guibal, Guibal, | Guibal, | Dickson, | Guibal, | Guibal | Guibal, | Guibal, | Guibal, | Wandell, | Guibal | Guibal | |
| 9.1. | 1.3 | .5.5 | 1.7 | == | e.j | ~ : | 1.7 | ej : : | 1.3 | 2.5 | 4 | |
| 99 | 14) %6 80 | 99 | 120 52 | 70 | 09 | 120 | 96 | 09 : : | 13 | 16 | 02, | |
| 0.0 | 5.0 | 99 | 9.1 | 92 | 4, | 3.10 | 9 | 9 | 9 | 73% | හ | |
| 6.6 | 85.0 | 00 00 | 6.2 | נט נט | 4 | 3.10 | 6.6 | ıc . | ro | 00 | 3.6 | : |
| 20 | 12.4 26 25 | 202 | 35 | 80.0 | 16 | 임 | 50 | 17 | 16 | 22 | 12 | |
| Fan, | 2 fans, | 2 fans, | Fan, | Fan, | Fan, | Fan, Natural, Natural, Natural, | Fan, | Fan, Natural,. Natural,. | Fan, | Fan, | Fan, | Natural, |
| Gaseous, Gaseous, | Gaseous, | Gaseous, | Gaseous, Gaseous, | Gaseous, Gaseous, | Non-gas. | Non-gas. Non-gas. Non-gas. Non-gas. | Gaseous, | Non-gas. Non-gas. Non-gas. | Non-gas. | Gaseous, | Non-gas. | Non-gas. |
| Shaft, | Shaft | Shaft, | Shaft, | Slope, | Drift, | Tunnel Slope | Shaft, | Shaft, Drift, | Shaft, | Shaft, | Slope | Slope, |
| ('entral Colliery— No. 13, Laws, | Kingston Coal Co. No. 1. No. 4, | Clear Spring Ctal Co. | Delaware, Lackawanna and Western Raliroad ('0, Pettebone No. 1, Pettebone No. 2, | Stevens Coal Co. Stevens Colliery— No. 1. No. 2. | Connell Anthracite Coal Co. Bernice Colliery, No. 2, | Raub Goal Co. Louise Collery— Meunt Thomas, Klondike, Hennett, Waddells, | People's Bank, Receiver Black Diamond, | Delaware and Hudson Co. Langeliff colliery, No. 1, No. 2. | Northern Anthracite Coal Co. | W G. Payne Coal Co. | Robertson and Law Coal Co. Katy-did Nos. 1 and 2, | Reliance,Reliance, |

TABLE I.-Continued.

| REPORT OF TH | IE DEI | AIV | TWIE |
|--|---------------|---------------------------|----------------------------|
| Average number of cubic feet per minute provided for each person | : | : | |
| Number of persons employed inside | : 11 | | |
| Number of cubic feet per minute parsing out at out- | | | |
| rog ris lo ylitasup lstol' lls ni gatisluvito stunim the stilds of the s | | : : : : | |
| Number of cubic feet of air effect of air effect of the first of the f | | | : |
| Number of splits of air cur- | : _ | : | : |
| Power used | | | |
| ns) to smsN | | | |
| Water gauge developed—in | | : | |
| Number of revolutions per minute | | : | |
| Depth of blades in feet | | : | |
| Width of blades in feet | | : | |
| Diameter of fan in feet | | : | |
| Method of ventilation | Natural, | Natural, | Natural, |
| Cascous or non-gaseous | Non-gas. | Non-gas. | Non-gas. |
| Anin∍qo lo bniÆ | Tunnel, | Drift, | Slope, |
| Names of Operators and Mines | Troy Coal Co. | Lykens, | Randall and Shaad Coal Co. |

TABLE 1.-Operators, location of collieries, railroads, etc.

| | | | | _ | - | | | | - | | |
|-----------------------------------|---|--|--|-------------------|-------------------------------------|---|------------------|--------------------------------------|----------------|---|------------------------------|
| Railroad to Mine | Lehigh Valley | Lehigh Valley | Erie | D., L. and W. | D., L. and W. | D., L. and W. | Lehigh Valley | Lehigh Valley | Lehigh Valley | D., L. and W. | Delaware and Hudson |
| Post Office | Wilkes-Barre, | Wyoming, | Pittston, | Edwardsville, | Pittston, | Kingston, | Pittston, | Scranton, | Wilkes-Barre, | Plymouth, | E. R. Pettebone Dorranceton, |
| Name of Superin- tendent. | (F. E. Zerbey, | George Steele, | W. P. Jennings, | Gwillym Edwards, | J. Paul Cake, | H. G. Davis, | D. W. Evans, | W. L. Connell, | S. J. Tonkins, | J. B. Davis. | E. R. Pettebone |
| Post Office | Wilkes-Barre, | Scranton, | Scranton, | Kingston, | Pittston, | Scranton, | Scranton, | Scranton, | Luzerne, | Luzerne, | Scranton, |
| Name of General Superintendent | S. D. Warriner, | F. H. Hemelright,. | W. W. Inglis, | R. S. Mercur, | J. L. Cake, | R. A. Phillips, | H. W. Kingsbury | W. L. Connell, | S. J. Tonkins, | J. B. Davis, | Luzerne, C. C. Rose, |
| County | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Sullivan, | Luzerne, | Luzerne | Luzerne, |
| Names of Operators and Collieries | Lehigh Valley Coal Co. Matthy Exerter Westmoreland, Seneca, | Temple Iron Co. Harry E., Forty Fort, Mt. Lookout, | Pennsylvania Coal Co. Barnum, Central, | Kingston Coal Co. | (Tear Spring Coal Co. (Tear Spring, | Delaware, Lackawanna and Western Railroad Co. Pettebone | Stevens Coal Co. | Connell Anthracite Coal Co. Bernice, | Raub Coal Co. | People's Bank, Receiver Black Diamond, | Delaware and Hudson Co. |

TABLE 1.-Continued.

| Mine | | P\$ | | | | | |
|-----------------------------------|---|--------------------------------------|--|------------------------|------------------------|----------------------------------|---|
| Railroad to Mine | Lehigh Valley | D., L. and W. | Erie | Lehigh Valley | Lehigh Valley | Lehigh Valley | Lehigh Valley |
| Post Office | | Kingston, | | | | | Lehigh Valley |
| Name of Superin- tendent. | | Geo, Montgomery, Kingston, | | | | Towanda, | |
| Post Office | Sullivan, P. J. Murray, Lopez, | Kingston, | J. M. Robertson, Moesic, | Theedore Hogan, Aveca, | Edwin Davies, Wyoming, | | W. J. Shaad, Mildred, |
| Name of General Superintend nt | P. J. Murray, | W. T. Payne, | J. M. Robertson, | Theodore Hogan, | Edwin Davies, | W. B. Gunton, | W. J. Shaad, |
| County | Sullivan, | o. Luzerne, | Co. Luzerne, | Luzerne, | Luzerne, | Sullivan, | Sullivan, |
| Names of Operators and Collieries | Northern Anthracite Coal Co. Murray. | W. G. Payne Coal Co. East Boston, | Robertson and Law Coal Co. Katydid, | Reliance Coal Co. | Tray Coal Co. | W. B. Gunton Coal Co. Lykens, | Randall and Shaad Coal Co. Randall and Shaad. |

TABLE 2.-Number of tens of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder and dynamite used, etc.

| | | | - | | | | Maringon . | eren armon |
|---|--|-----------|--|---------|----------------------------------|------------------|------------|-------------------|
| Number of horses and mules | 128 110 655 233 | 331 | 63 91 | 214 | 99 | 158 | 158 | 130 |
| Mumber of pounds of dynamife | 207,525 72,992 13,475 16,352 | 310,3:4 | 109,574 51,280 13,175 | 174,029 | 6,406 | 12, 264 | 12,264 | 2,350 |
| Number of kegs of powder used | 10,507 13,299 12,6 2 1,954 | 38,422 | 13,285 10,326 10,925 | 34,536 | 14,148 | 22,069 | 22,069 | 17,975 |
| Number of non-tatal accidents | 15 | 31 | 221 | 33 | 63.69 | 20 | 22 | 6 |
| Number of fatal accidents | 010001 | 6 | 10 co 4 | 12 | 63 | 2 | 63 | + |
| Number of employes | 850 684 588 168 | 2,290 | 780 668 816 | 2,264 | 884 660 | 1,544 | 1,554 | 1,176 |
| Number of days worked (Totals are averages, not including | 258 255 232 135 | 220 | 235 235 236 | 232 | 224 185 | 204 | 204 | 244 |
| Tetal production of coal in tons | 535, 853 326, 371 209, 331 45, 220 | 1,116,775 | 266,310 250,405 313,316 | 830,031 | 372, 407 243, 065 | 615,472 | 626,737 | 516,247 |
| Number of tons sold to local trade and used by employes | 7,219 3,563 2,383 1,518 | 14,683 | 5,162 27 4,725 | 9,914 | 953 | 4,496 | 4,496 | 42 |
| Number of tons used at collieries for steam and heat | 21,514 30,280 27,819 7,294 | 86,907 | 45,625 21,900 45,220 | 112,745 | 4,520 | 9,610 1,125 | 10,735 | 37,230 |
| Number of tons of coal shipped to market | 507, 120 292, 528 179, 129 36, 408 | 1,015,185 | 215, 523 228, 478 263, 371 | 707,372 | 366, 934 | 601,366 | 611,506 | 478,975 |
| County | Luzerne, | | Luzerne, | | Luzerne, | Luzerne, | | Luzerne, |
| Numes of Operators and Collieries | Exerer, Lehigh Valley Ccal Co. Marthy, Seneca, Westmireland, | Totais, | Mr. Lenkout, Temple Iron Co. Mr. Lenkout, Harry E. | Totals, | Pennsylvania Coal Co. (Pentral. | Central washery, | Totals, | Kingston Coal Co. |

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| Number of horses and mules | 8 | oc. | 29 | 02 | 07 | c) | 40 | 40 | 13 | 21 |
|--|-------------------------------------|---------|---|----------|-----------------------------|-----------------------|---|---------|------------------------------------|-----------|
| Mumber of pounds of dynamite | 24,175 | 24,175 | 13,025 | 63, 075 | 19,559 | 17,650 | 9,600 | 9,6110 | 4.020 | 44.0 |
| Number of kegs of powder used | 10,043 | 10, (49 | 4,960 | 5,306 | 2,236 | 5,593 | 1,30 | 1,300 | 6,585 | 4,550 |
| Number of non-fatal accidents | 6.3 | 8 | 1 10 | 4 | 00 | (m) | 4 : | 4 | - 10 | - |
| Number of fatal accidents | 6 | 6 | | - | c ₃ | - | c1 | C1 | - | |
| Number of employes | 25. | 811 | 4.58 | 321 | 305 | 466 | 56:: 6 | 345 | - | |
| Number of days worked (Totals are averages, not including washeries) | - 15 gg | 251 | 159 | 940 | ୍ ମ | 19) | 至春 | 154 | 151 | 133 |
| snot ni Igos to notisuborq IgioT | 202,518 141,742 | 344,260 | 167, 784 | 167,546 | 176,890 | 126,955 | 110,170 | 133,170 | 111,411 | 109,421 |
| Xumber of tons sold to local trade and used by employes | 17,577 8,445 | 26,022 | 1.40 | | 1,867 | 7,975 | 3, 478 | 3.47 | 1,191 | 2,158 |
| Number of tons used at collieries for steam and heat | 10,000 | 10,0.89 | 13.5 | 26,757 | 18,251 | 19,345 | S, 400 | 31,40 | 12, 785 | -1.00 |
| Number of tons of coal shipped to market | 174,941 | 208,238 | 156,742 | 135,857 | 1.6,775 | 1.9,635 | 98, 292 | 98,295 | 100,4415 | 1 0,263 |
| County | Luzerne, | | Luzeine | Luzerne, | Sullivan, | Luzerne, | Luzern-, | | Luzerne, | Sullivan, |
| Names of Operators and Collieries | Clear Spring, Clear Spring Coal Co. | Totals, | Delaware, Lackawanna and Western Raileoad Co. Pettchone, | Stevens, | Connell Anthracite Coal Co. | Louise, Raub Coal Co. | Prophe's Bank, Receiver Black Diamond, Black Diamond washery. | Totals, | Largeliff, Delaware and Hudson Co. | Murray, |

| 46 | 45 | 62 | 15 | 6 ==== | 6: | | 1,317 |
|--|---------|----------------------------|-----------------------------|---------------|-----------------------|----------------------------|---------------|
| 1,575 | 1,575 | 10,375 | 2.10 | 2.500 | | | 667,041 |
| 2,476 | 2,476 | 1,826 | 667 | 300 | 139 | 150 | 159,449 |
| 10 | 2 | : | : | - | | | 112 |
| | | - | : !! | | | | 19 |
| 1983 | 365 | 172 | 96 | 149 | 81 | 20 | 11,436 |
| 148 | 145 | 185 | 276 | 7.1 | 36 | 176 | 184 |
| 25.35 | 103,931 | 61,995 | 25, 289 | 7,623 | 6.300 | 4,018 | 4,630,053 |
| 6,139 | 6,139 | 840 | 4,894 | 180 | 500 | 418 | 94,935 |
| 18.55 | 25,106 | 3,50 | 3.500 | 528 | 400 | 190 | 409,906 |
| 72,782 | 72, 792 | 57,655 | 16,895 | 6,915 | 6,000 | 3,410 | 4,125,912 |
| Luzerne, | | Luzerne, | Luzerne, | Luzerne | Sullivan, | Sullivan, | |
| East Boston, W. C. Payne Coal Co. East Boston washery, | Tetals, | Robertson and Law Coul Co. | Reliance, Reliance Coal Co. | Troy Coal Co. | W. B. Gunton Coal Co. | Randall and Shaad Coal Co. | Grand totals, |

TABLE 2.—Recapitulation

SIXTH ANTHRACITE DISTRICT

TABLE 2.-PART 2.

| | MBI ONI OF THE | DEPARTMENT OF MINES |
|-------------------|-------------------------------|---|
| | Number of air compressors | Ø10 61 HH H ØH 172 |
| | Number of electric dynamos | 63 63 1163 15 163 |
| Der | Quantity delivered to surface | 11, 738 5,500 4,010 900 600 1,900 2,750 2,750 2,750 1, |
| 911 | Capacity in gallons per minu | 12, 500 10, 820 10, 820 1, 200 1, 200 1, 200 1, 300 1, 300 1, 300 1, 300 1, 300 1, 300 1, 300 1, 300 1, 300 1, 500 1, 500 |
| ring | Number of pumps delive | E 0 0 4 6 0 0 10 10 10 10 10 10 10 10 10 10 10 10 |
| | Total horse power | 4, 816 4, 816 1, 898 1, 809 1, 717 1, 717 1, 225 1, 905 1, 905 1, 905 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1 |
| ils 3 | Number of steam engines of | 810 60 60 60 60 60 60 60 60 60 60 60 60 60 |
| ives | Electric | 4.0 0 10 15 |
| Locomotives | iñ | 4.0010 14 01 11 1 1 00 1 1 1 1 1 00 1 1 1 1 |
| J | Steam | |
| Number of Boilers | Total horse power | 6.0000 6.000 6.000 6.000 6.000 6.000 6.000 6.000 6.000 6.00000 6.0000 6.0000 6.0000 6.0000 6.0000 6.0000 6.0000 6. |
| | Horse power | 6, 600 1, 2, 100 1, 2, 100 1, 300 1, 300 1, 300 1, 200 1, 200 |
| per of | Tubular | 289 100 100 100 100 100 100 100 100 100 10 |
| Num | Horse power | 850 850 120 300 405 125 125 |
| | Cylindrical | 0 44 0 55 0 1 |
| | County | Luzerne Luzerne Luzerne Luzerne Luzerne Luzerne Luzerne Luzerne Luzerne Luzerne Sullivan Luzerne |
| | Names of Operators | Lebigh Yalley Coal Co., 'Temple From Co. Temple Iron Co. Kingston Coal Co., 'Clear Spring Coal Co., 'Lear Spring Coal Co., 'Lear Spring Coal Co., 'Clear Spring Coal Co., Stevens Coal Co., Rauh Tractle Coal Co., Rauh Coal Company. People's Bank, Receiver, People's Bank, Receiver, Coal Co., Rauh Coal Co., Rauh Coal Co., Robertson and Hugan Coal Co., Reliance Coal Co., Reliance Coal Co., Reliance Coal Co., Reliance Coal Co., W. B. Gunton Coal Co., W. B. Gunton Coal Co., Kandail and Shaad Coal Co., Kandail and Shaad Coal Co., Kandail and Shaad Coal Co. |

TABLE 3.-Number of each class of employes inside and outside of mines

| | Grand total inside and outside | 859 684 588 168 | 290 | 780 6418 816 | 264 | 884 | 1,554 | 1,176 |
|---------|-----------------------------------|--|---------|--|---------|--|---------|-------------------|
| | | ∞c∞1- | 61 | | oi o | 0 +0 | - | [|
| | Total outside | 208 210 188 67 | 673 | 168 151 210 | 529 | 163 184 10 | 357 | 335 |
| | sayolqma tadto IIA | 128 112 90 30 | 370 | 8::8 | 209 | 10 10 | 160 | 179 |
| | Bookkeepers and clerks | 4.4.0.01 | 13 | 00 01 01 | 1- | 44 | × l | 6.5 |
| Je | Slate pickers (men) | 01000000 | 49 | 13 13 16 16 | 52 | 12 12 1 | 000 | |
| Outside | Slate pickers (boys) | 26 37 16 | 119 | 36 | 169 | 12.2 | 112 | 100 |
| | Engineers and firemen | 138 | 59 | 2112 | 000 | 11 28 | 53 | 000 |
| | Blacksmiths and carpenters | 116 | 52 | 113 | 36 | 10 : | 21 | 14 |
| | Foremen | | 4 | | 60 | 01- | 3 | H |
| | Superintendents | = = : : : | - | | : | ::: | | |
| | əbizai IsloT | 642 474 400 101 | 1,617 | 612 517 606 | 1,735 | 721 476 | 1,197 | 841 |
| | All other employes | 96 | 182 | 114 | 34 | 118 | 69 | 99 |
| | ин упрапу пнеп | | 62 | 1999 | 188 | 24 28 | 0) | 12 |
| | Бипртеп | 1.0120 | 55 | 10 10 | 23 | H 60 | 4 | 00 |
| Inside | Door boys and helpers | w w + €1 | 22 | 19 | 61 | 13 | 33 | 23 |
| In | Drivers and runners | \$5.54 13.04 13.04 | 193 | 4.00% | 179 | 116 | 178 | 65 |
| | Miners' laborers | 1177 | 433 | 1112 97 198 | 4117 | 372 | 546 | 156 |
| | stentM | 258 2.8 150 46 | 919 | 241 | 817 | 133 | 307 | 400 |
| | Fire bosses and assistants | 67341 | 16 | 11 00014 | 0 | : | C1 | 12 |
| | Assistant mine foremen | ÷1 44 | 9 | | 01 | 63 | 00 | |
| | Mine foremen | C4 1→ → → | 10 | D. | 4 | 2101 | 4 | 00 , |
| | County | Luzerne, | | Luzerne, | | Luzerne, | | Luzern-, |
| | Names of Operators and Collieries | Lehigh Valley Coal Co. Exerci. Sentes. Westmoreland. | Totals, | Temple Iron Co. Mt. Lookout. Forty Fort. | Totals. | Pennsylvania ('oal Co. Baraum, 'central, 'central, | Totals, | Kingston Coal Co. |

TABLE 3.-Continued

| | Grand total inside and outside | 255 | 811 | 471 | 488 | 321 | 302 | 466 | 336 | 346 |
|---------|-----------------------------------|-----------------------|--------|------------------------|---------|------------------|-----------------------------|---------------|---|---|
| | 1 | ر در دی | | 433 | 0 11 | 10 11 | 6 !! | اا | c1 on | - |
| | Total outside | 156 | 181 | 113 | 130 | 105 | 129 | 156 | 112 | 121 |
| | All other employes | 25.50 | 84 | 50 | 61 | 51 | 63 | 38 | 9 | 49 |
| | Bookkeepers and clerks | 9 : | 9 | 61 | 2 | 63 | 2 | 4 | 63 | 63 |
| le | Slate pickers (men) | ∞ : | 00 | 00 | 8 | 13 | C1 | os | 25 | 25 |
| Outside | Slate pickers (beys) | 9 | 09 | 33 | 34 | 15 | 42 | 15 | 16 | 16 |
| | Engineers and firemen | 14 | 14 | 138 | 21 | 14 | = | 8 | 20 | 30 |
| | Blacksmiths and carpenters | [- | 1- | 9 1 | 7 | 00 | 7 | oc | L- | ~ |
| | Foremen | | - | | 107 | - | - | ~ | - | - |
| | Superintendents | 7 : | - | | : | - | 1 | - | - | - |
| | Total inside | 630 | 630 | 358 | 358 | 216 | 176 | 310 | 224 | 954 |
| | All other employes | :: | | 57 | 57 | = | 53 | 15 | 10 | 10 |
| | (,ompany men | 100 | 100 | = | 11 | 10 | oc j | 36 | 47 | 47 |
| | nəmqmuq | | is | 2 : | 2 | 4 | 6 | 4 | 4 | 4 |
| Inside | Door boys and helpers | 40 | 40 | = : | = | 4 | 63 | 6. | 00 | 000 |
| Ins | stenant bas stevita | 87 | 87 | 48 | 48 | 31 | 10 | 36 | 34 | 34 |
| | Miners' laborers | 160 | 160 | 121 | 121 | 3 | 38 | 92 | 55 | 25 |
| | Miners. | 230 | 230 | 194 | 104 | 8 | 2 | 155 | 09 | 09 |
| | Fire bosses and assistants | 491 | - | | 0 | 2 | | - | 4 | 4 |
| | Assistant mine foremen | 60 | 000 | | 1 : | | - | 00 | - | - |
| | Mine foremen | - | - | - : | - | | - | - | - : | |
| | County | Luzerno | | Luzerne | | Luzerne, | Sullivan, | Luzerne, | Luzerne, | |
| | Names of Operators and Collieries | Clear Spring Coal Co. | Totals | D. L. and W. R. R. Co. | Totals, | Stevens Coal Co. | Connell Anthracite Coal Co. | Raub Coal Co. | People's Bank, Receiver Black Diamond, Plack Diamond Washery, | To to to to to to to to to to to to to to |

| _ | | | | | | | | | | |
|-------------------------|------------|------------------------------|-----------------------------------|---------|----------------------------|-------------------|---------------|----------------------------------|----------------------------|---------------|
| | 403 | 189 | 360 | 365 | 172 | 96 | 149 | 53 | 20 | 11,436 |
| | 114 | 62 | 96 | 101 | 57 | 31 | 56 | | 7 | 3, 151 |
| | 49 | 10 | 22.0 | 26 | 21 | 13 | 25 | | | 1,433 |
| | 63 | 61 | 4 | 4 | 63 | 1 | 60 | | | 33 |
| | 20 | 12 | 18 | 18 | | | 9 | | | 238 |
| | 21 | 26 | 33 | 33 | 31 | 90 | 12 | | 4 | 849 |
| _ | 12 | 9 | 13 | 13 | 00 | 4 | - | | 1 | 330 |
| | 90 | 3 | * | 4 | ಣ | 4 | 4 | | 1 | 201 |
| | Н | 27 | 61 | 67 | = | 1 | - | 1 | | 153 |
| | : | | -: | | 1 | - | | | - | 12 |
| | 289 | 127 | 264 | 264 | 115 | 65 | 93 | 15 | 13 | 8,285 |
| | 11 | 63 | - | 7 | = | | | | : | 86 |
| | 16 | 10 | 91 | 91 | 10 | 9 | 20 | | - | 744 |
| | ¢1 | - | 9 | 9 | 63 | - | | | | 26 |
| | 23 | 60 | = : | 11 | 63 | 6) | | | 1 : | 244 |
| _ | 44 | 15 | 45 | 45 | 15 | t- | 11 | 61 | 1 | 1,035 |
| _ | 93 | 47 | 45 | 45 | 39 | 97 | 25 | 61 | | 2,306 |
| _ | 118 | 48 | 23 | 53 | 40 | 21 | 35 | 10 | 19 | 3, 257 |
| | - | | | 00 | | - | î 🗐 | 1 : 1 | 1 | 52 |
| | н | | 61 | 2 | : | : | : | | | 22 |
| _ | - | - | - : | | | e | - | - | - | 30 |
| | Luzerne, | Sullivan, | Luzerne, | | Luzerne, | Luzerne, | Luzerne, | Sullivan, | Sullivan, | |
| Delaware and Hudson Co. | Langeliff, | Northern Anthracite Coal Co. | East Boston, East Boston washery, | Totals, | Robertson and Law Coal Co. | Reliance Coal Co. | Troy Coal Co. | W. B. Gunton Coal Co. Lykens. | Randall and Shaad Coal Co. | Grand totals, |

TABLE 3.—Recapitulation

| 230 | 264 | 884 | 4,437 | 11,436 |
|-----------------------|------------------|--|--------------------------|---------|
| - 69 | Ø H | î | | 1 |
| 229 | 322 | 130 | 1.348 | 3,151 |
| | | 61 | | 1, 433 |
| 13 | t~ 00 | 63 63 | £5 | 63 |
| 49 | 225 | 20 3 | 92 | 238 |
| 119 | 169 | 25 23 | 393 | 849 |
| 53 | 23 | 12 21 | 154 | 330 |
| 90 | 36 | 00 | 11 | 201 |
| 4 | 60 60 | 24 | 12 | 153 |
| - | 1 | | Ξ | 12 |
| 1.617 | 1,735 | 358 | 3,089 | 8,285 |
| 182 | 34 | 57 | 145 | 498 |
| 62 | 188 | 111 | 415 | 744 |
| 92 | 63 4 | 6161 | 4.4 | 2.6 |
| 22 | 32 33 | 112 | 105 | 244 |
| 193 | 179 | 84 | 393 | 1,085 |
| 433 | 246 | 121 | 206 | 5,306 |
| 929 | 307 | 104 | 1,235 | 3, 257 |
| 16 | 0 01 | 100 F | 21 | 52 |
| 9 | ¢1 60 | : | 10 | 22 |
| 10 | 77 77 | | 15 | 30 |
| | Luzerne | | Luzerne and Sullivan, | |
| Lehigh Valley Coal Co | Temple Iron Co., | D. L. and W. R. R. Co., Delaware and Hudson Co., | Miscellaneous companies, | Totals, |

TABLE 3.-PART 2.

| Delaware and Hudson Co. | Luzerne, | 15 | 1 | 16 | 12 | 15 | 15 | 11 | 13 | • | 12 | 10 | 12 | 151 |
|-----------------------------------|-----------|----|----|----|----|----|----|----|----|----|----|----|-----|-----|
| Northern Anthracite Coal Co. | Sullivan, | 17 | 13 | 13 | 10 | 6 | 2 | 9 | | п | 16 | 18 | 17 | 139 |
| W. G. Payne Coal Co. East Boston, | Luzerne, | 14 | 13 | 7 | 12 | 13 | 13 | = | 13 | = | 12 | 12 | 12 | 148 |
| Robertson and Law Coal Co. | Luzerne, | 17 | 15 | 19 | 14 | 19 | 18 | 4 | 16 | 14 | 15 | IS | 19 | 185 |
| Reliance, | Luzerne, | 20 | 24 | 27 | 23 | 26 | 19 | 24 | 21 | 22 | 18 | 25 | 25 | 276 |
| Troy, Troy Coal Co. | Luzerne, | | | | | | | Ħ | 17 | 12 | ្ន | 00 | 11 | 71 |
| W. B. Gunton Coal Co. | Sullivan, | 9 | 9 | 2 | | | | 4 | 60 | 6 | | | | 36 |
| Randall and Shaad Coal Co. | Sullivan, | 15 | 15 | 00 | | | | 10 | 35 | 53 | 26 | 23 | 183 | 176 |

TABLE 4.-Fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief. | Killed by a fall of top rock in chamber. Killed by a fall of top rock in chamber. Fatally injured by premature blast. Fatally injured by premature blast. Patally injured between cars. Fatally injured by an explosion of dyna. | mite. Killed by falling down shaft. Fatally injured by falling into rollers in breaker. Outside. | 4 4 | | Killed by falling into eage pit. Killed by a premature blast. Killed by a fall of top rock. Fattilly injured by being squeezed by cars. Killed by an explosion of gas. | Kilbed by a fall of top rock. Kilbed by a premature blast. Kilbed by an electric wire. Estal'y injured by an explosion of gas. Kilbed by a fall of top eval. Fatally injured by a fall of top rock. | Fatally injured between cars, (Killed by an electric wire, |
|--|--|--|---|--|--|---|--|
| County | Luzerne, | | Luzerne, | Luzerne, | | Luzerne, | |
| Name of Mine | Clear Spring. Malthy Harry E. Sarnum No. E. Kingston No. E. Katydid, | Harry E., Maltby, | Westmoreland, | Maltby. Bernice. Kingston, | Mt. Lockout, Forty Fort, Columbia, Forty Fort, Seneca, Twin, | Exeter, Mt. Lookout, Mt. Lookout, Harry E., Pettehone, Langeliff, | Exeter, Mt. Lookout, |
| Number of orphans | 01+ 03 | c1 : | 900 :::::::::::::::::::::::::::::::::: | - | - ::::::::::::::::::::::::::::::::::::: | : c : : : : | :: |
| swobiw to redmuN | ==:::= | 7 | | - : : : | - : : | | - |
| Married or single | Kww.kk | iv Z | ZZZZZZZ | n in in K | ZX.v.ZZ | ZivizZziv | Z x |
| 984 | 02 4 5 5 5 4 4 4 5 5 5 5 5 5 5 5 5 5 5 5 | 25 | 8888844 | | | | |
| noibadiooO | Miner, Miner, Miner, Miner, Laborer, | Laborer, | Laborer, Miner, Miner, Miner, Miner, Miner, | Carpenter. Miner. Laborer, Miner. | Frotman, Miner, Laborer, Miner, | Runner, Miner, Loor tender, Miner, | Timberman, Miner, |
| Nationality | Polish, Hungarian, Polish, Russian, American, English, | Polish, | Italian. German. German. Polish. Polish. Polish. | Polish, Polish, Polish, Lithuanian, | American, Polish, Polish, Molish, | American Lithuanian, Italian, American, American, | Welsh |
| Name of Person | Charles Lyons, Joseph Sheetz, Louis Ferbersky, Frank Rustick, Robert Smith, John Davis, | | | | | Christopher Swe Peter Didgion, John Mezzomo, George Kille, Robert Loftus, Michael Vorrett | Thomas J. Williams, |
| | 965555 | | 400000000 | ### ### ############################## | 2222 oo | T 5, 81 8 15 15 | 5 c |
| finabies to etsel | Jan. | Feb. | March | | Aprill | June | Aug. |

| * * |
|--|
| Fatally injured by cars, Killed by a fall of rock, Fatally injured by a fall of top rock, Fatally injured by a fall of top rock, Fatally injured by a fall of top rock, Fatally injured by an explosion of gas. Killed by a fall of top rock. Fatally injured by an explosion of gas. Killed by a fall of top rock. Killed by a fall of to |
| Luzerne, Sullivan, Luzerne, |
| M 1 Clear Spring. |
| E OF E OF E OF E |
| WWWWENERS TO THE STATE OF THE S |
| Polish Driver 21 Polish Laborer 25 Polish Laborer 27 Polish Laborer 21 Polish Laborer 21 Polish Minor 24 Welsh Minor 25 Welsh Minor 25 American Runner 27 American Runner 27 Polish Minor 27 Polish Minor 27 Polish Minor 27 Polish Laborer 20 Lithuanian Minor 20 |
| Polish I I Polish I P |
| John Toner, Farik Karatik Farik Karatik Farik Karatik Farik Kalas, Domitsio (apon Morris James, Peter Comb, Patrick Freem William Frent Frank Rishten Andrew (usiok |
| |
| Sept. Oct. Nov. Dec. |

TABLE 5.-Non-fatal accidents inside and outside of mines

| County Nature and Cause of Accident in Brief. | Leg broken by fall of coal. Burned by an explosion of gas. Burned by an explosion of gas. Leg and arm broken by fall of coal. Brused about legs and body by being | caught in belt in breaker. Burned by an explosion of gas. Hands injured by being caught between | Cars. Burned by an explosion of gas. Ankle dislocated by a fall of coal. Hands injured by a fall of coal. Head squeezed between cars. Brujsed about head and abdomen by fall | of coal. Foot squeezed by being caught under car- | Luzerne, Friage. Luzerne, Leg broken by fall of rock. Burned about head and body by an ex- | Burned about head and body by an explo- | puolson of gas, Burned by powder while making a charge. Burned by powder while making a charge. Leg broken by fall of coal. Leg broken by timber failing on him, | outside. Burned by powder while making a charge. Bruised about head and back by fall of | coal. Leg injured by rock falling on it from | Cut on legs and arms by fall of rock. Cut on head and arms by fall of rock. |
|---|---|---|---|--|--|---|--|--|---|---|
| Name of Mine | Black Diamond) Clear Spring, Clear Spring, Clear Spring, Ranum No. 3 Kingston No. 4, | Seneca, Coxey, East Boston, | Harry E., Pettebone, Black Diamond. Kingston No. 4. Langeliff, | Kingston No. 4, | Forty Fort, Forty Fort, Mt. Lookout, | Mt. Lookout, | Seneca, Twin, Seneca, Twin, Mt. Lookout, Seneca, | Harry E. | Exeter, | Mt. Lookout, |
| Married or single | KKwwK | Σά | ZiviviZi | σά | Kin in | υi | KwwK | y. 🕱 | υż | wiwi |
| YE6 | 352 | .: 243 | 42 30 30 36 | 17 | 288 | 20 | 82288 | 22.22 | 17 | 88 |
| noilsquosoO | Miner, Laborer, Miner, Laborer, | Miner, Laborer, | Miner, Miner, Miner, Brakeman, Laborer, | | Miner, Miner, Runner, | Runner, | Miner, Laborer, Miner, Loader, | Miner, | Driver, | Laborer, |
| Vationality | Russian, Polish, Polish, Irish, Lithuanian, | Polish, | Polish, Welsh, Hungarian, Polish, American, | Polish, | Italfan, Polish, American, | Атегісап, | Polish, Polish, Polish, | Irish, Lithuanian, | American, | Slavonian, Laborer, Lithuanian, Laborer, |
| Name of Person | John Bariskle, Joseph Kresange, Peter Kasoluris, Martin Carley, Martin Miller, | Joseph Latonice, | Stanley Eusheck, John Asten, Vinele Peeren, Michael Shelawack, Patrick Houston, | Harry Gonza, | Robert Beleggi, Constine Wavavich, Richard Parsons, | Arthur Calvey, | Anthony Bendacitus William Gekosk'e, Joseph Washaelfskie Michael Yarrowman, | Patrick Higgins, | George Nicholas, | Paul Cemmout, |
| Date of secident | Jag | 18 | Feb. 6 9 9 10 10 20 20 | 21 | 23 24 March 6 | 9 | 13 | 22 | . 25 | 28.23 |

| Leg broken by falling in chamber. Arm fractured by lever breaking while retracking cars. Bruised about hips by a fall of rock. Tringed about face by the burstine of | flying coal freed by mule. | Rhis broken and cut on arm; squeezed by motor. Finger cut off by being caught by wheel, cut on knee by an axe while making wedge. Burned about face and hands by powder. Injured by falling timber in chamber. Leg broken by being caught under loaded | cut on head by fall of coal. Leg broken by fall of top rock. Ribs and shoulder broken by falling off lader outside. Inducer outside while prying piece of coal. Burned by pick while prying piece of coal. | Out powder. Burned about face and body by explosion of p wder. Injured by being ktoked by mule. Burned about hands and face by explosion of powder. Injured by cars. | Left leg broken by fall of rock. Injured about back and head by fall of top cral. Broke leg while wrestling with another boy. Outside. Scalp wound and bruised about legs by | Injured by cars at head of slope. Leg broken by all of ceal. Leg broken by ash. Injured by fall of top reck. Injured by fall of top reck. Leg injured by cars. Out on head by fall of top rock. Burned by an explosion of gas, Burned by an explosion of gas, Runezed by cars about the hips. Leg broken by being hit by plane rope. Leg injured by fall of wal. Hip dislocated by cars. Outside. |
|---|--|--|--|--|---|---|
| | | Luzerne, | | Sullivan, | Luzerne, | Luzerne, |
| Harry E., Louise, Forty Fort, East Boston | Forty Fort, Forty Fort, Forty Fort, Black Diamond, | Mt. Lookout. Exeter, Exeter, Forty Fort, Mt. Lookout, | Harry E East Bost n Sen~ca, Exeter, Maltby, | Maltby. Exeter. Stevens. Bernice (Connell), | Forty Fort, Exeter, Barnum, Bernice (Connell, | Clear Spring, Kingston No. 1. Eineston No. 1. Exerci. Fettebone Exerci. Harry E. Harry E. Pettebone Law shaft Maltby. |
| ziv ziv | | WEW EW E | ம்ம் 🗷 ம்மம் | | K S KS | ZWZWWZZZWW |
| 32 31 32 32 | | | #28 88 98 | | 29 29 14 | |
| Miner Tracklayer, Laborer, Trackman | 1 1 1 1 | Laborer, Bratticeman, Miner, Miner, Driver, | Laborer, Machinist, Miner, Laborer, | Miner, Driver, Miner, | Miner, Miner, Slate picker, Miner, | Head-man, Laborer, Laborer, Laborer, Lab rer, Company man, Miner, Runner, Runner, Runner, Laborer, Laborer, Laborer, Laborer, Laborer, Laborer, Laborer, |
| Italian, Hebrew, American, Slavonian | Italian, | Polish | Irish, Hungarian, American, Austrian, | Polish, Polish Lithuanian, Polish, | German Russian American, | Gorman Polish Polish Polish Slavonian Polish Frish Frish American American Polish Slavonian Slavonian American Polish Polish |
| 4 Joseph Reno, 8 Louis Salsberger, 11 Wm. Sullivan, 22 Joseph Sobeck, | | Adam Vinsky, John Noonan, Louis Zolus, Joseph Douches, Peter Pinskuwskie, James Drane, | James Costello, Prank Voein, Thomas Hulhagher, George Sunay, Joseph Yodish, | | August Erdman, John Abormovich, Charles Brown, John Lunie, | Christia Ulrich, John Totali blusky, John Boblick Michael Chismer, Peter Vishry, Wm. X. Lee, Wm. X. Lee, John T. M. Barnesky, John T. Barnesky, Joseph Annan, Joseph Ashler, |
| | | 10 11 15 16 18 20 | 223 222 | 24 E E E E E | 9 8 8 | 124148486688 |
| April | May | | | June | | July |

TABLE 5.—Continued

| | | | | | | | | | | | | 0.22 | 200 |
|---|--|--|---|--|---|--------------------------------------|---|---|---|--|---------------------------------------|---|---|
| | Nature and Cause of Accident in Brief. | Leg injured by flying piece of coal from | Finger amputated by rail falling on it. Arms broken by falling conveyor line. | Bruised about body and legs by fall of | top rock. Injured about hips by being squeezed | Arm broken by car on culm dump. Out- | Side. Leg broken and back bruised by fall of | Foot injured by machinery in breaker. Face and body injured by premature blast. Leg broken by being bumped by engine. | Four transfer of the control of the | ninn. Squeezed about body by falling under cars. Leg broken by timber falling on it. Hand smashed by being run over by cars. Wrist fractured by being caught between | Burned about head and hands by an ex- | Finston or gas, Fine transfer of the property | Arm and foot bruised by cars. Hip and back bruised by fall of rock. |
| | County | | | | | | | | Luzerne, | | | | |
| | Name of Mine | Mt. Lookout, | Exeter, | Seneca, Coxey, | Troy, | Maltby, | Exeter, | Kingston No. 4, Mt. Lookout, Stephens, | Exeter, Harry E., Black Diamond, | Forty Fort, East Boston, Exeter, Langcliff, | Louise, | Louise, Maltby, Stevens, Central, | Exeter, |
| | Married or single | o, | w w | M. | υi | M | M | KKN | જાં જાં જાં | Z Z w w | M. | NEEN | vi vi |
| | Age. | 83 | 22 18 | 40 | 17 | 28 | 37 | 15 23 23 | 17 22 22 | 13 47 23 23 | 30 | 8822 | 30 20 |
| | noitequesO | Miner, | Driver, Foot tender, | Miner, | Driver, | Laborer, | Miner, | Slate picker, Miner, Engineer, | Miner, Driver, Miner, | Driver, Foot tender, Foot tender, Runner, | Miner, | Runner, Miner, Miner, Foot tender, | Door tender, |
| | Nationality | Polish, | English, | Polish, | Slavonian, | Slavonian, | Lithuanian, | American, Italian, | Russian,Italian, | American, German, Irish, | Polish, | Irish, Slavonian, Lithuanian, American, | Welsh, |
| | Name of Person | Edward Kadliuski, | Robert Taylor, | Louis Yanavage, | Stephen Gruva, | Michael Shucka, | Andrew Dovick, | Stephen Evary, Peter Poline, Adolph Raukow, | John Bowclowiez, Frank Lutch, Bateca Evanies, | John Walko, Anthony Morvick, James ('unard, Fred Kramer, | William Kupster, | Eugene Ward, Simon Zember, Michael Oxanus, William Dougherty, | Samuel Humphreys, |
| | Date of accident | ly 18 | 19 | 31 | 31 | 31 | 31 | 1473 | 288 | pt. 2 | 12 | ដូននេះ | 2,00 |
| 1 | | July | | | | | | Aug | | Sept. | | | Oct. |

| Fractured several ribs by being bumped | Toe cut off by a piece of rock falling on it. Right hand crushed by being run over by | Squeezed by cars. Squeezed by cars. Figure cut off with axe while making | Burned about face and hands by explo- | Cut on face and bruised by cars. (Foot broken and otherwise injured by runnaway car | Leg broken by being bumped by cage. Burned about face, hands, and back by | Burned about for gars, hands, and back by | Foot badly crushed by piece of rock fall- | Ribert Statement of the Ribert | Leg broken by being caught by car. Leg broken by being caught by car. Head and shoulder injured by a fall of | Face and hands burned by gas. Bried about head, back and legs by fall | Broken leg and scalp wound by fall of | Face and hands burned by explosion of | Face and hands burned by explosion of | Leg broken from force of explosion of | Leg broken by fall of top coal. |
|--|---|--|---------------------------------------|--|--|---|---|--|--|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------|
| | | Luzerne, | | Sullivan, | Luzerne, | | Sullivan, | | | | Luzerne, | | | | |
| M. Langeliff, | Maltby, | Pettebone, | Maltby, | Bernice, | Kingston No. 4 Forty Fort, | Forty Fort, | Murray, | Kingston No. 1, | Harry E | Stevens, | Kingston No. 1, | Harry E., | Harry E., | Harry E., | Seneca, Twin,] |
| | S. K. | zi⊠. | υż | MM | MM. | vi | M | M | wiwi | ∑ vi | M | M | v. | M | M. |
| 53 | 40 | 18 | 18 | 85.53 | 35 | 30 | 43 | 46 | 222 | 32 | 8 | 42 | 40 | 4 | 49 |
| Tracklayer, | Miner, Laborer, | Driver, | Driver, | Machinist, Laborer, | Foot tender, | Laborer, | Laborer, | Miner, | Laborer, | Fire-boss, | Laborer, | Miner, | Miner, | Laborer, | Miner, |
| German, | American, | Polish, | Slavonian, | American, | Polish, Lithuanian, | Lithuanian, | American, | English, | Polish, | Irish, Lithuanian, | Polish, | Polish, | Polish, | American, | American, Miner, |
| 7 Mathew Arch, | John Gannon, Frank Dougherty, | Mike Borkwich, | Frank Tomastick, | James F. Patton, | Clement Lotton, | John Perlovitz, | James Devlin, | 28 Martin Ducket, | Michael Jacobs, | Michael Dunn, | Andrew Urban, | Andrew Pastula, | Anthony Agness, | Edward Corcoran, | J. B. Evans, |
| £- | 13 | 51.53 | 9 | s 11 | 15 | 11 | 18 | 81 | 68 | 212 | 66 | 83 | 53 | 600 | 63 |
| Oct. | | | Nov. | | | | | | Dec. | | | | | | |

FATAL ACCIDENTS

By Falls of Coal, Slate and Roof

Charles Lyons, Polish, miner, age 30 years, was killed at the Clear Spring Colliery, Clear Spring Coal Company, January 6, in the Marcey Vein, west side. He had fired a hole in the top rock the day previous. The foreman warned him that day to take down the loose material and properly secure his place. He evidently failed to do as he was ordered, and the first thing in the morning when going into his place a piece of rock fell on him, fatally injuring him. He died about three hours after the accident occurred.

Joseph Sheetz, Hungarian, miner, age 41 years, was instantly killed at the Maltby Colliery, Lehigh Valley Coal Company, January 9, in the Ross Vein on the Mountain Tunnel. He was about to fire a shot and ignited a squib, then went into an adjoining chamber for safety. The shot went off and shook down a piece of rock over his head, which

fell on him, killing him instantly,

Marciso Rosistelle, Italian, laborer, age 46 years, was killed at the Westmöreland Collicry, Lehigh Valley Coal Company, March 4. He was engaged in loading a car of coal with his miner about 12:45 P. M., when a piece of rock fell on him, killing him almost instantly. The foreman and the fire-boss were in there together about 10 o'clock in the morning and the place looked perfectly safe. The piece that fell was in the shape of a slip, or bell shape, and it was very difficult to detect any crevice around it.

George Petski, Lithuanian, miner, age 22 years, was instantly killed at the Louise Colliery, Raub Coal Company, March 30. The victim had fired a blast and had just gone back into his breast when he was caught by a fall of roof rock. The accident occurred in the Red Ash Vein, Klondike Tunnel, about 12:30 P. M. If the victim had been more cautious on entering his place after firing the blast,

the accident might have been avoided.

Joseph Dembeck, Polish, laborer, age 17 years, was instantly killed at the Columbia Colliery, Lehigh Valley Coal Company, April 27, by a fall of rock near the face of the chamber where he was engaged in loading a car of coal. The accident was probably unavoidable.

Christopher Swartz, American, runner, age 21 years, was fatally injured at the Exeter Colliery, Lehigh Valley Coal Company, May 11, by a piece of coal falling off the rib of the gangway as he was crossing between Station 480 and Station 468, in the Red Ash Vein.

He lived but a short time after the accident occurred.

Robert Loftus, American, age 31 years, was fatally injured in the Pettebone Co'liery D., L. and W. Coal Company, June 27. He had put up two sets of timber and fired a blast in the top coal. He went back to get on the fall of coal and was barring down some of the loose material. He told the laborer to push over one of the legs, which he did. This caused the coal to slide and a large piece which slid from near the top, caused a piece of rock to fall, catching Loftus between it and another piece, injuring him internally. The accident occurred in the 6th Chamber, New Gangway, Red Ash vein, about 10 A. M. It was unavoidable.

Michael Vorrett, Austrian, miner, 31 years of age, was fatally injured July 5, in No. 2 slope, Checker vein, Langeliff colliery, Delaware and Hudson Company, by a fall of coal. He died from the effects of his injuries on the 7th at the Pittston Hospital. Nature of his injuries was a fractured right thigh, lacerations of the scalp and internal injuries.

John Copeck, Polish, laborer, age 25 years, was killed at Kingston No. 4 shaft, Kingston Coal Company, October 1, at about 5:30 P. M., in the Ross vein. He was working on the night shift. The miner John Coosyack, and the driver John Doud, were with him at the time. If they had taken down the rock as the mine foreman directed and taken out a set of timber that he had stood, the accident would not

have occurred.

Frank Kaver, Polish, miner, age 26 years, and Walter Sicoskie, Polish, age 24 years, his laborer, were killed at Black Diamond colliery October 4. They were working near the face of the chamber, when a large piece of roof rock fell, killing Sicoskie instantly, and fatally injuring Kaver, who died at the Mercey Hospital about 3 P. M. on the following day.

Joseph Kulas, Polish, laborer, age 19 years, was instantly killed at about 10 A. M. November 22, in the Twin shaft, Lehigh Valley Coal Company, by a fall of roof rock. He and the miner were preparing to put up a prop to support the roof. While Kulas was engaged in shoveling coal away for that purpose a stone fell on him.

The accident would seem to have been unavoidable.

Morris James, Welsh, miner, age 45 years, was instantly killed in No. 1 shaft Kingston Coal Company, December 14, at 9:45 P. M. The victim was in the act of mining out some loose coal, when a large

piece of rock fell on him, killing him instantly.

Patrick Freeman, American, runner, age 33 years, was killed at the Forty-Fort colliery, Temple Coal and Iron Company, December 27. He was going up to the breast to run a car when a piece of rock known as "hog back" fell on him, killing him instantly. The accident happened in the 6 foot vein, Road 5 B, Breast 26, at about 1 P. M.

William Fronter, English, miner, age 70 years, was instantly killed at the Barnum No. 3 Colliery, Pennsylvania Coal Company, December 28. The victim worked in the Checker vein, No. 3 shaft. At about 10:30 A. M. he was completely covered by a fall of rider rock and top coal. It took two hours to get the fall removed and get the victim out from under it. He was considered a very careful and experienced miner and the accident was probably unavoidable.

Frank Rishtem, Italian, laborer, age 20 years, was killed at the Bernice colliery, Connell Anthracite Mining Company, December 30. He had his skull fractured by a fall of top rock at about 8:30 A. M. He was in the act of loading a car of coal when without warning the

rock fell. He lived about one hour after the accident.

By Cars

Robert Smith, American, laborer, age 27 years, was killed in No. 4 shaft, Kingston Coal Company, January 21. He was engaged in cleaning out the barn and had loaded a car of debris from one of the stalls. He then went to run the car out with the assistance of the runner and driver, who were in the barn at the time. He had put a sprag in one wheel and pushed the car out a little way when it stuck. They took out the sprag and Smith went to the front end and was pulling on the car, the other two were pushing. In some manner Smith stumbled and the car passed over him up to the axles, causing his death about three hours later.

Joseph Rascavage, Polish, miner, age 32 years, was killed in the Bernice colliery, Connell Anthracite Mining Company, March 13, by being squeezed between the car and face of his chamber. The runner forgot to set the switch and the car was allowed to run back into the

victim's place.

Adam Witlonis, Polish, miner, age 35 years, was killed on May 3, at the Forty-Fort colliery, Temple Coal and Iron Company. He was going into his work in the morning and got on a trip of cars to go to his place. His laborer lost his cap and lamp. The victim jumped off the trip to get them and was caught between the rib and the car. Accident happened on haulage road near foot of 11 foot slope at about 7 A. M.

Thomas J. Williams, Welsh, timberman, age 30 years, was killed at the Exeter colliery, Lehigh Valley Coal Company, August 16. The victim was driving on this day on Road 43. About 11.30 his mule ran away and went to Road 34. He was dragged with the loaded trip and found by the mine foreman, D. J. Thomas, under the fourth car of the trip. He was sent to the Pittstoa Hospital,

where he died on September 13.

John Toner, Irish, driver, age 21 years, was injured September 23, at the Clear Spring colliery, Clear Spring Coal Company. He worked in No. 2 lift West Marcey vein. He had a sprag in the front wheel of the loaded trip when the team started off, before he had time to pull the block. The wheel passed over his hand, badly lacerating the flesh. He went to the hospital, but would not allow the injured member to be amputated. Blood poisoning set in and he died in 15 days from the time of the accident.

Premature Blasts

Louis Ferbersky, Polish, miner, was fatally injured at the Harry E colliery, Temple Coal and Iron Company, January 10, by flying pieces of coal from a premature biast in the Red Ash Vein. He died shortly

after being admitted to the hospital.

Frank Rustick, Russian, miner, age 25 years, was seriously injured in the Barnum No. 2 colliery, Pennsylvania Coal Company. The victim had prepared a hole to fire and thought it had missed. He went back to the face of the chamber when the charge went off, seriously injuring him. He died about three hours after the accident occurred.

John Davis, English, miner, age 41 years, was killed at Katydid colliery, Robertson and Law Coal Company, January 24. The victim was in the act of pushing dynamite back under the rock and had evidently given the same a hard blow, causing a premature blast. The rock flew striking him on the abdomen, seriously injuring him. He died while being taken to the hospital in the ambulance.

John Gorkoskie, Polish, miner, age 27 years, was killed at the Forty-Fort colliery, Temple Coal and Iron Company, April 21st. The victim and his laborer had tamped a hole in readiness to fire. The laborer went back to a place of safety while the miner remained at the face of chamber. The laborer says he did not hear the miner call "fire," but shortly after he heard the shot go off. He went into the face and found the victim about 15 feet away with a cut over the right temple, which caused his death.

Peter Didgion, Lithuanian, miner, age 42 years, was almost instantly killed in Mt. Lookout colliery, Temple Coal and Iroa Company, May 20. The victim's death was caused by a premature blast in the bottom rock. After waiting about 10 minutes for a shot to go off, he thought the squib had missed and went back to light it

again, when the charge went off.

Explosions of gas

John Cheneski, Polish, laborer, age 30 years, was fatally injured March 20, at No. 4 colliery, Kingston Coal Company. He was badly burned on the head, hands and back by an explosion of gas. The accident happened about 9 A. M. on 2 east gangway, Ross slope. The victim went into an abandoned chamber where there was a danger mark across to prevent persons from entering. There had been no gas seen in this place for some time previous, nor was there any detected there the day after the accident. The victim died from the effects of his injuries at the Wilkes-Barre City Hospital, March 29.

Harry Collier, American, rockman, age 24 years, was fatally injured May 8, at the Twin shaft, Lehigh Valley Coal Company. Accompanied by other workmen he went down the shaft at about 4:30 P. M. to work on the night shift. The day shift men had finished their work and had left the place, leaving an air valve open. The night shift men, for some unknown reason closed this valve causing an explosion of gas, which burnt Collier so badly that he died at the

Pittston Hospital about 6 P. M. the same evening.

George Kile, American, age 16 years, door boy, was fatally injured June 26, at the Harry E. colliery, Temple Coal and Iron Company, in lift No. 38, Red Ash vein. The door was allowed to stand open for a few minutes and when closed caused a volume of air to go into the airway. There being some high spots there the gas had accumulated and the runner and driver walking under one of these spots, ignited the gas, burning Kile and two laborers. Kile died from the effects of his injuries after being taken to the City Hospital.

Domitsio Caporolli, Italian, miner, age 24 years, was fatally injured by an explosion of gas at the Stevens Colliery, Stevens Coal Company, November 23. He had entered his place to commence work. Gas had accumulated in the place between the time the fireboss had made his examination and the time Caporolli had arrived at his work. He ignited the gas and was burned so seriously on the face, hands and shoulders, that he died shortly after being taken outside.

This is quite a remarkable case. No gas was ever found in this section before and the places are working towards the outcrop. The fire-boss examined this place about two hours before the miner went in and found no gas. The ventilating current was checked by a canvas door and unless this door had been standing open for some time

and closed without the knowledge of the miner by some unknown person, I can see no reason for gas accumulating in this chamber.

Peter Conel, Tyrolean, rockman, age 22 years, was fatally injured at the Harry E. Colliery Dec. 15. He with other rockmen was driving a tunnel and after firing a round of holes went back to the face with open light, igniting some gas which had accumulated, burning the victim and another laborer quite seriously. Conel died at the Mercy Hospital December 23.

Andrew Cusick, Lithuanian, miner, age 22 years, was burnt on face and hands, also on back by an explosion of gas at the Mt. Lookout colliery, Temple Coal and Iron Company, December 21. The victim was driving a cross-cut through a pillar and after firing a hole entered with a naked light, causing an explosion. He should have examined the place with a safety lamp. He died from the effects of his injuries at the Pittston Hospital.

Falling Down Shafts

William Swooage, Polish, laborer, age 28 years, was fatally injured at the Harry E colliery, Temple Coal and Iron Company, Feb. 1. This man was discovered by P. T. Casey, foot-tender, on top of west side carriage. From the position he was found in, it seems he got off at Ross vein on the wrong side. Seeing his mistake he must have jumped for the carriage and was caught by the bonnet. The victim was taken to the hospital where he died a few hours after being admitted.

Clear Spring Colliery, March 9:

George Hass, German, miner, age 50 years. Dominick Janosky, Polish, miner, age 30 years. Adam Gustonas, Polish, miner, age 35 years. Mike Janosky, Polish, miner, age 45 years. Stanley Bladdis, Polish, miner, age 24 years. Adam Kamanofsky, Polish, miner, age 40 years. Anthony Cherpoolis, Polish, miner age 45 years.

These seven men were going home after their day's work. They came to the foot of the airshaft and got on the cage and gave the signal to the engineer to hoist. When the carriage was about 250 feet from the bottom the rope broke, the cage with the seven men going back to the bottom, killing them instantly.

I ordered an inquest in this case and a copy of the proceedings has

been sent to the Department of Mines.

The inquest was held in the Town Hall, in the borough of West Pittston, March 13, at 7:30 P. M.

Jurors.--Frank Savage, Alfred Gingell, Andrew Law, Thomas

Thomas, James I. Ehret, James MacMillan.

A motion was made to adjourn and the jury to meet the next night. March 14, at the office of James I. Ehret, justice of the peace, to consider the testimony and render a verdict. The jury rendered the following verdict:

We, the jury, do find that George Hass, and the other six men, came to their death by the breaking of a rope in the air shaft at the Clear Spring colliery, the carriage falling to the bottom of the shaft

while they were ascending said shaft. From the testimony adduced we are of the opinion that some undue strain was put on the rope which caused it to break, cause of said strain being to the jury unknown.

George Weaver, American, foot-tender, age 24 years, was killed at the Mt. Lookout colliery, Temple Iron Company, April 21. This man was taking down wooden rails. He had sent a load of men up the shaft and when the carriage came down the other side, Walter Decker saw him walking in the sump directly under the carriage. Weaver did not warn the engineer that he was going into the sump, nor the other footman.

By Machinery

Frank Heffers, Irish, hopper tender, age 15 years, was fatally injured at the Maltby colliery, Lehigh Valley Coal Company, February 14. It was his duty to clean down the chutes and hoppers. He was in the act of pushing culm down the chute which is located close to No. 2 boney rolls, when he fell over onto the roller pinions which were uncovered. The wheel caught his leg and he was pulled into the machinery, crushing his leg and abdomen very badly. He died the same afternoon.

Wadish Zylinsky, Polish, carpenter, age 29 years, was almost instantly killed at the Maltby colliery, Lehigh Valley Coal Company, March 11. He was employed as a carpenter in breaker and was helping with several other men to replace an elevator chain. While in the act of placing the chain sling around the elevator so as to brook the pulley and rope blocks for the purpose of lifting it to its proper place, the chain was prevented from falling by one of the elevator buckets. To release the bucket he placed his head under the chain when the bolt that held the bucket to the chain broke, allowing the chain to drop on his head, crushing his skull, from the effects of which he died almost instantly.

Miscellaneous

John Mezzomo, Italian, miner, age 38 years, was killed at the Mt. Lookout colliery, Temple Iron Company, June 22. It appears that this man went back from the face of his chamber to help two other men push an empty car to his place. In some manner he came in contact with the electric wire and received a shock which caused his death.

Simon Stanules, Polish, miner, age 45 years, was killed at Mt. Lookout colliery, Temple Iron Company, September 9. This man worked on Road 4, C gangway, and was found dead on gangway road. He fired two holes and it is believed he was hit by flying coal, throwing him against the wire that runs along on the opposite side of the gangway. The reason given for this is that when found his clothing was on fire and he was burned about the face and shoulders. The accident occurred about 10.30 A. M.

CONDITION OF COLLIERIES

LEHIGH VALLEY COAL COMPANY

Exeter Colliery.—Ventilation, roads and drainage good. Condition all through satisfactory.

Maltby Co'liery.-Ventilation good. Roads and drainage fair.

Sanitary condition fair all through.

Seneca Colliery.—Ventilation fair. Drainage and roads in some

places very bad.

Westmoreland Colliery.—The ventilation is very much improved. Roads and drainage good. Condition as to safety is also good.

TEMPLE IRON COMPANY

Mt. Lookout Colliery.—Ventilation fair. Roads and drainage fair. Condition as to safety, in general, is good.

Forty Fort Colliery.-Ventilation fair. Roads and drainage fair.

Condition as to safety good.

Harry E Colliery.—Ventilation good. Roads and drainage good. The general condition of the mine is excellent.

PENNSYLVANIA COAL COMPANY

No. 13 Shaft.—Ventilation fair. Roads and drainage very much improved. The sanitary condition in general is good.

Laws Shaft .- Ventilation fair. Roads and drainage good. Condi-

tion as to safety good.

Barnum No. 3.—Ventilation good. Roads and drainage good and the general condition as to safety is good.

Barnum No. 2.—Ventilation very much improved. Roads and drainage good. Sanitary condition of the mine is good.

KINGSTON COAL COMPANY

No. 1 Shaft.—This colliery is in excellent condition. Ventilation is good. Roads and drainage good and the general condition of the mine is very satisfactory.

No. 4 Shaft.—Ventilation good. Roads and drainage good. Con-

dition as to safety good.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Pettebone Colliery.—This colliery is in very good condition in regard to ventilation. Drainage could be a little better. The condition of the mine as to safety is very good.

On October 26 a squeeze occurred in the Red Ash vein at this colliery. The damage was comparatively small and the squeeze was

arrested without any accidents.

RAUB COAL COMPANY

Louise Colliery.—In fair sanitary condition. Ventilation could be improved upon in a number of places. Roads and drainage fairly good.

PEOPLE'S BANK, RECEIVER (PLYMOUTH COAL COMPANY)

Black Diamond Colliery.—Ventilation fair. General condition as to roads and drainage fair. Sanitary condition in general is fairly good.

W. G. PAYNE COAL COMPANY

East Boston. — Ventilation fair. General conditions as to roads and drainage fair. Condition as to safety good.

CLEAR SPRING COAL COMPANY

Clear Spring Colliery.—Ventilation good. Roads and drainage fair. Condition as to safety good.

STEVENS COAL COMPANY

Stevens Colliery.—The condition of this colliery has been very much improved upon during the year. Ventilation is good. Roads and drainage good. Condition as to safety good.

DELAWARE AND HUDSON COMPANY

Langeliff Colliery.—Ventilation good. Roads and drainage good. General condition as to safety good.

ROBERTSON AND LAW COAL COMPANY

Katydid Colliery.—Ventilation fair. Roads and drainage fair. Condition as to safety good.

RELIANCE COAL COMPANY

Reliance Colliery.—Ventilation good. Roads and drainage in some places poor. General condition as to safety good.

TROY COAL COMPANY

Troy Colliery.—Ventilation fair. Roads and drainage bad. Condition as to safety good.

CONNELL ANTHRACITE COAL COMPANY

Bernice Colliery.—Ventilation good. Roads and drainage good. Condition as to safety good.

NORTHERN ANTHRACITE COAL COMPANY

Murray Colliery.—Ventilation good. Roads and drainage fair. General condition as to safety good.

W. B. GUNTON COAL COMPANY

Lykens Colliery.—This colliery has been abandoned.

RANDALL AND SHAAD COAL COMPANY

Colliery.—Ventilation bad. Roads and drainage good. Condition as to safety good.

O'Boyle and Foy Mining Company have erected a new breaker and sunk and opened up two shafts, one for a hoisting shaft and the other for an air-shaft, or second opening. They have not shipped any coal so far but intend to operate early in the spring of 1906. This breaker will have a capacity of from 800 to 1,000 tons per day when in full operation.

IMPROVEMENTS

LEHIGH VALLEY COAL COMPANY

Exeter Colliery.—Completed installation of 20 foot Guibal, double intake fan driven by 18x20 inch Corliss engine. Brick house for same.

New wash house equipped with 100 lockers.

Three hundred H. P. B. and W. water tube boiler and brick house.

New inside barn in Marcey vein.

 Λ series of surface test holes to determine safe rock cover working limit over Checker vein.

Bore holes and extension of silt lines in Checker vein.

The breaker has been equipped with new mechanical pickers.

New cage on second opening Red Ash.

Maltby Co'liery.—No. 9 Rock slope, 600 feet long completed.

Surface road 1,200 feet long completed between shaft and No. 9 tunnel.

New brick stable for 60 mules, concrete harness house and mule hospital.

Three permanent concrete over casts are being constructed in Marcey vein.

New Duplex 30x10x36 pump placed at foot of shaft and 10 inch column pipe up shaft to surface.

A centrifugal pumping plant is under construction, including 175 K. W. 500 volt generator with engine for same.

One 12 inch bore hole for pump discharge.

Five thousand feet length of wiring from generator to pump.

New pump house at foot of Marcey vein haulage way.

Extensive repairs continued to breaker.

New shakers installed, also additional pickers. Bore hole and pipe line for silting in Six Foot and Marcey veins.

Westmoreland Colliery.—This colliery was purchased from the Wyoming Coal and Land Company and came into possession of the Lehigh Valley Coal Company March 1. Immediately after its purchase an exchange was entered into between the Lehigh Valley Coal Company and the Pennsylvania Coal Company for the Monument farm tract, and slopes are being sunk through the barrier pillars in the Marcey and Pittston Veins.

A series of test holes has been and will be continued to prove the safe working rock cover over the Pittston vein.

A rock slope 300 feet long has been sunk from the Marcey to the Ross vein.

Two tunnels have been driven in water level from Ross to top split of Red Ash.

Two tunnels from top to bottom Ross.

New brick boiler house has been constructed.

One 250 H. P. Root boiler installed, and 300 H. P. Stirling boilers now under construction.

A system of fire protection, water lines, fire hydrants, etc., has been installed.

The fan has been entirely rebuilt.

A new second opening is under construction from the Pittston vein to the surface.

A new central pumping station is being pushed to completion in the Marcey vein.

Steam lines have been taken out of slopes and are now run down new 10 inch bore hole.

A 14 inch column pipe is being constructed.

Six inch silt hole completed from surface to the Marcey vein.

Williams crusher being installed.

A new Duplex pump has been placed in the Marcey vein.

The old flue boilers and cylinder boilers have been dispensed with. New warehouse built.

New brick boiler fan, feed and fire pump house completed.

Pittston vein is being regraded and enlarged.

Drainage bore hole completed from Pittston to Marcey vein.

Seneca Colliery.—Six new jigs were installed in breaker.

The new shaft to the Pittston vein was completed, and a second opening was also driven.

The Phoenix is now ventilated from the Twin and Coxey, as the fan for that purpose has been removed to the Pittston vein shaft.

TEMPLE IRON COMPANY

Mt. Lookout Colliery.—The main shaft has been sunk from the Marcey vein to the Red Ash vein, a distance of 180 feet. A connection has been driven between the main and supply shafts in the Red Ash vein, and the gangways continued in a southerly course from the main shaft, a distance of 600 feet.

A rock slope was driven from the Marcey vein to the Red Ash vein on 19 degree dip, 560 feet in length. This slope cut the Red Ash vein about 1,000 feet southerly from main shaft. Gangways were turned on course to meet gangways driven from main shaft, and have 200 feet of drive to make connection. Two new 7½ ton electric locomotives have been installed in Marcey vein and are giving good satisfaction.

The main fan house, containing two 8x20 foot fans, was burned on June 5. The fire is supposed to have started from a hot journal. One fan was repaired sufficiently to enable men to resume work after two days idleness; the other fan was repaired and enclosed by a concrete building. The engine house, fan casing, division wall, air ducts and spiral are entirely made of concrete, making an absolutely fire-proof building. On account of the effect of cold weather on concrete during construction they have decided to defer the erection of the other fan house until spring.

A pair of 20x38 inch hoisting engines were erected on the supply shaft in place of a pair of 14x16 inch engines, which were inadequate to do the work required. The engines are enclosed in a fire proof building, size 22x33 feet.

 Λ 10x18 foot frame building was erected to enclose fire pump.

Forty Fort Colliery.—A 10x14 inch locomotive has been installed to haul mine rock from the shaft to the dump, and a 16x24 foot locomotive house erected for same.

A 14x42 foot addition to the carpenter shop has been built; also a 12x16 foot addition to the oil house.

A water pipe consisting of 212 feet of four-inch pipe, and 288 feet of three inch pipe, has been laid from the water main to outside barn,

for fire protection.

The 3-inch steam pipe which supplied the Ross slope engines was too small to carry the amount of steam required and they found it necessary to lay 1,000 feet of 4-inch pipe to those engines; also 600 feet of 6-inch pipe to carry exhaust steam to the return airway. This was done at our suggestion.

A slope is being sunk from Road 8 A in the 4 foot vein to reach the

basin in the southeast corner of this property.

The Ross slope struck a roll which they are driving through on a 6 degree grade. This slope was driven in the rock a distance of 227 feet, and has about 150 feet more to go before reaching the coal.

The development of the Ross and 11 foot veins is progressing sat-

isfactorily.

Five bore holes were put down from the surface to the 4 foot vein to test the rock cover of the same, along the D., L. and W., Bloomsburg R. R. Division.

A 7x12 foot rock tunnel was driven from Road 13 in the bottom split of the 11 foot vein to the top split, and a 7x8 foot air shaft, fifteen feet deep, was sunk from top to bottom split. This work was done to develop the top split of the 11 foot vein in this locality.

Harry E Colliery.—A new breaker has been erected on the easterly side of the old structure and is now practically completed. All the machinery is in place except the breaker and conveyor engines, which cannot be placed until the old breaker is abandoned, on account of obstructing the present loading tracks. The shaft head frame is framed and ready for erection. New self dumping cages have been made and delivered, ready for installation.

New cylinders, 26x48 inch, have been purchased to replace the present cylinders on the hoisting engines, which are 22x48 inches, and of sufficient power to operate the new cages, which are much

heavier than the old ones.

A 20x22 foot fire proof brick building, with concrete floor and iron roof, has been creeted over the Ross S'ope engines which are located at the head of the air shaft and in close proximity to the supply and fan house, and replaces an old dilapidated frame building.

A 12x16 foot frame building used as a harness repair shop has been erected at safe distance from the barn, to replace a 10x20 foot frame building which stood so close to the barn as to be a menace in case

of fire.

A 16x22 foot addition to the blacksmith shop has been erected

owing to insufficient room in the original shop.

A new 16x10x18 inch duplex pump, built by the Scranton Steam Pump Company, was installed at No. 25 lift, Red Ash vein, and 2,300 feet of cast pipe laid from this pump to the foot of the shaft. A new 26x12x36 inch duplex Coyne pump was installed at the foot of shaft, and 410 feet of 14 inch cast pipe erected in the shaft to carry water from this pump to the surface.

A 6x7 foot manway, 56 feet in length, was driven from the Red Ash

to the Ross vein, on 35 degrees pitch.

A new mule stable with 14 stalls has been built in the 11 foot vein.

PENNSYLVANIA COAL COMPANY

Central Colliery.—Car shop 63x33 feet, built of brick.

Wood shed 75x17 feet, built of wood.

Slope engine house, 36x26 feet, built of brick. Clark slope Laws shaft.

Engine house 45x21 feet 7 inches. Built of brick. Laws shaft.

Wash house, 30 feet 3 inches x 18 feet 4 inches. Built of brick. Divided into three compartments.

Boiler house 114x59 feet, wooden frame, covered with corrugated iron and consists of 8 Keeler boilers of 150 H. P. each.

New shaft tower on Laws shaft.

Mine car haulage for empty mine cars at breaker.

Rearrangement of the outside mine car tracks.

Barnum Colliery.—Brick locomotive house at No. 2 shaft.

Brick wash house at No. 2 shaft, divided into apartments for the miners, outside men and foremen.

New barn at No. 2 shaft outside.

Brick oil house at Barnum breaker furnished with oil pumps complete for lubricants.

Added one battery 300 H. P. B. and W. boilers to the boiler plant.

KINGSTON COAL COMPANY

No. 4 Colliery.—Completed the new boiler plant of 1,200 H. P. Babcock and Wilcox boilers. This is only one-half of the final boiler plant planned.

Built conveyor lines for fuel from breaker to boiler house.

Built a conveyor line to carry refuse from breaker to Williams' patent crusher. This rock is then crushed and flushed with the culm into the mine workings.

They have built new warehouse and office.

They have drilled about 12 bore holes to prove rock cover over Orchard vein.

They are driving a rock plane from Bennett vein on 15 degrees pitch to cut upper vein.

The plane has reached during the year the Orchard vein.

STEVENS COAL COMPANY

Stevens Colliery.—Installed 20 foot fan at new plant; put in a division partition shaft for upcast airway to fan.

Completed hoisting arrangements at new shaft, by installing cage

on south side, fans, etc.

Installed 90 H. P. electric engine and generator for electric haulage in mines.

Installed fire-pump in our new shaft buildings.

Completed bridge for our railroad track over Carpenter's Creek.

Built sand drying house 10 feet x 16 feet.

Built engine house 15 feet x 24 feet x 10 feet high for locomotives.

Put in concrete retaining walls 2½x8 feet x 99 feet long, at mouth of main slope, in place of the wooden cribbing that has heretofore been in use.

Drove 1,100 feet of new road, to connect new shaft to west gangway road.

Drove 240 feet of rock tunnel 8 feet x 12 feet for new road in Red Ash to face of 5th vein workings,

A slope 360 feet long at the inside end of new road was driven to the coal left in dip south of new road, and a 60 H. P. engine installed to operate this slope.

Installed electric haulage 300 feet long, with $8\frac{1}{2}$ ton motor. This

road is lighted with electric lamps.

Made second opening to Ross vein, same being the rock tunnel, crossing measures to the Marcey vein, size 8x12 feet.

CLEAR SPRING COAL COMPANY

Clear Spring Colliery.—They installed a 115 K. W. electric machine and engine, and are at present using the current for drilling inside. They intend installing two electric locomotives at an early date to be used in their small vein, viz: Marcey vein.

W. G. PAYNE COAL COMPANY

A new $16x24x15\frac{1}{4}x18$ inch Ingersoll-Sergeant air compressor, complete, has been installed alongside of the one already in use is a new engine house 16x44 built on concrete walls and foundation.

A new outside hospital for the mine stock, furnished with water

and heat, was built during the year.

Air compressor pipe line running from the compressor down the shaft was increased in size from 8 to 10 inches.

There was a tunnel driven in the Eleven Foot vein through a roll

60 feet over all so as to get at the vein beyond.

Owing to the high percentage of acid in the mine water they changed all the Bennett pumps during the past year from cast iron to bronze. They also installed a new No. 10 Knowles pump in the Red Ash s'ope; also a new No. 9 Knowles pump installed at the same station.

There has been a new plane built 260 feet long used for conveying culm from the culm bank into the washery, in connection with a 90 foot swinging conveyor.

RAUE COAL COMPANY

Louise Colliery.—A tunnel, 106 feet long was driven from top Ross to bottom split of same vein in the Mt. Thomas drift, cutting the vein in good shape on the other side of fault.

A new air shaft, 6x6 feet, was sunk from surface on mountain

side a depth of 57 feet, commencing with chamber in top Ross on opposite side of fault, thus furnishing good ventilation for both splits, and a means of escape if necessary.

A slope, 200 feet deep, was sunk in Mt. Thomas, Ross bottom split,

below level of tunnel.

A new steam pipe line 3,600 feet long was run from Klondyke boilers to Mt. Thomas, to drive fan, slope and pump engine.

A 10 ton mine locomotive was put to draw the coal from same col-

liery, viz: Mt. Thomas, in place of mules.

A new steam plane is under construction from a point on Red Ash, west gangway, Mt. Thomas, to a distance of 1,000 feet, up the pitch to a point at or near outcrop of vein, cutting off, several gangways from Klondyke east workings, enabling them to handle the coal much cheaper than the present system of haulage.

DELAWARE AND HUDSON COMPANY

Langeliff Colliery.—No. 2 slope, Red Ash vein, was extended 700 feet.

Two bore holes, 180 feet deep, each, put down for flushing culm into the mines.

ROBERTSON AND LAW COAL COMPANY

Katydid Colliery. -The only improvement made at this colliery during the year was a washery annex to the breaker and they have commenced washing the dump and mixing it with fresh mined coal.

NORTHERN ANTHRACITE COAL COMPANY

Murray Colliery.—They have extended the tracks for the large empty cars about 1,000 feet.

Installed a new breaker engine which is about 140 horse power, replacing the one that was formerly in use which was about 90 horse power.

TROY COAL COMPANY

Troy Colliery.--This company has made many extensive improvements.

They erected a new breaker, with a capacity of 500 tons.

Installed a new boiler plant, return tubulars of the Fox pattern, with a total horse power of 250.

They have replaced the old trestling leading from foot of plane to the breaker by a new one.

They installed a haulage system over half a mile long both inside and outside.

They are driving a new tunnel from bottom split of the Ross vein to the top split of the same vein, a distance of about 100 feet.

They are sinking two slopes, one in the Ross vein and one in the Red Ash vein. This will open up a large area and increase their output.

RELIANCE COAL COMPANY

They have sunk a new shaft, size 12x18 feet, which when completed will do away with the slope.

They have also erected a tower over this shaft and put in place a

pair of first class hoisting engines.

This colliery is in fair condition except the roads which are wet in spots here and there.

Seventh District

LUZERNE COUNTY

Wilkes-Barre, Pa., February 28, 1906.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my annual report for the year 1905.

The production of coal shows an increase over the year 1904 of 237,413 tons.

Respectfully submitted,

JAMES MARTIN. Inspector.

SUMMARY OF STATISTICS

| Number of collieries, | 20 |
|--|-----------|
| Number of mines, | 52 |
| Number of mines in operation, | 52 |
| Number of tons of coal shipped to market, | 4,689,325 |
| Number of tons used at mines for steam and heat, | 516,951 |
| Number of tons sold to local trade and used by employes,. | 239,716 |
| Number of tons produced, | 5,445,992 |
| Number of persons employed inside of mines, | . 9,049 |
| Number of persons employed outside, | 3,919 |
| Number of fatal accidents inside of mines, | . 53 |
| Number of fatal accidents outside, | 8 |
| Number of non-fatal accidents inside of mines, | 182 |
| Number of non-fatal accidents outside, | 27 |
| Number of tons of coal produced per fatal accident inside, | 102,755 |
| Number of persons employed per fatal accident inside, | 171 |
| Number of persons employed per fatal accident outside,. | 490 |
| Number of persons employed per non-fatal accident inside, | 50 |
| Number of persons employed per non-fatal accident out- | |
| side, | 145 |
| Number of wives made widows, | 41) |
| Number of children orphaned, | 119 |
| Number of steam locomotives used inside of mines, | 3 |
| Number of steam locomotives used outside, | -26 |
| Number of compressed air locomotives used inside, | 5 |
| Number of electric motors used inside, | 9 |
| Number of fans in use, | .77 |
| Number of gaseous mines in operation, | 44 |
| Number of non-gaseous mines in operation, | 8 |
| Number of new mines opened, | 9 |
| | |

TABLE A

PRODUCTION OF COAL

| Names of Operators | Tons |
|---|-----------|
| Lehigh and Wilkes-Barre Coal Company, | 1,994,439 |
| Susquehanna Coal Company, | 1,234,491 |
| Lehigh Valley Coal Company, | 788,029 |
| Delaware, Lackawanna and Western Railroad Company,. | 665,606 |
| Alden Coal Company, | 267,738 |
| Red Ash Coal Company, | 235,056 |
| Delaware and Hudson Company, | 150,726 |
| Pittston Coal Mining Company, | 95,917 |
| Wilkes-Barre and Scranton Coal and Iron Company, | 13,990 |
| Total, | 5,445,992 |
| Draffer by Counting | |
| Production by Counties | |
| Luzerne, | 5,445,992 |

TABLE B. Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

| əpis | per non-fatal accident Number of employes out per non-fatal accident | 38. 63. 17.0 63. 449. 34.7 19. 34.7 43. 88. 31. 26. 31. |
|---------------------|--|---|
| | uno seyolqme 1. redmuX in seyolqme 1. redmuX in seyolqme 1. redmuX | 335.7 39.7 41.0 |
| 9bis | ni seynployes in Xumbloyes in Yerland | 22588888 E |
| S | Total number of employe | 855925535 6671 |
| 910 | Number of employes cutsi | 11.0.0.1.1 10.0.1 10. |
| ap | Number of employes insi | 99911 99911 99911 99911 99911 99911 99911 |
| Der e | heruberd tsee to sucT bismi mobioss fatsi-men | 6345655 5 8 6376666 5 6 |
| Det | Pens of coal produced spiral accident inside | 25, 25, 25, 25, 25, 25, 25, 25, 25, 25, |
| oidents | fatoT | 28.4 C C C C C C C C C C C C C C C C C C C |
| Non-Fatal Accidents | 9hishu() | H - H 01 00 00 14- |
| N. n-F | - ShiznI | \$64 E18 4 & a 1 1 1 |
| idents | Total | \$ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| Fatal Accidents | | 20.01 01 - 0 |
| Fa | - - 9biz::I | Sen 70 m = 1 |
| | Names of Operators | Debtith and Wilkes-Barre Goal Co., Streptedamm Coal Co., Lettin Valley Coal Co., Alden Coal Co., Alden Coal Co., Alden Coal Co., Debtware and Husten Co., Pittasa Coal Mining Co., Wilkes-Earre and Stranton Coal and Iron Co., Tatals and averages for district. |

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

| | | _ | | | | | | | | | == | | | |
|--|---------------------------------------|-----------|-------|-------|-----|-----------|-------|--------|-----------|---------|----------|----------------------|--|--|
| | | | | | | | M | onth | s | | | | | |
| • | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Causes of Accidents Inside Falls of coal, Falls of slate, Falls of roof, Mine cars Explosions of gas and dust, Suffocation by gas, etc. Premature blasts, Falling into slopes, etc. Miscellaneous, Totals, | · · · · · · · · · · · · · · · · · · · | 1 :::: | 1 | 2 | 2 | 1 :::: | 1 | 6 | 1 | 1 | 1 1 2 == | 2 2 2 1 | 12 1 13 7 1 1 5 1 12 | 22.64 1.89 24.52 13.21 1.89 9.43 1.59 22.64 |
| Causes of Accidents Outside Cars, Machinery, Suffocation in chutes, etc., Miscellaneous, | | | ! | | | | | 1 | | | | | 4 1 2 1 | 50.00 12.50 25.00 12.50 |
| Totals, | | | 3 5 | | 2 | 4 | 1 | 1 14 | 1 2 | 1 4 | | 7 | 8 61 | 100 |
| | | | | | | | | | | | - 1 | | | |

TABLE D.-Classification of Non-fatal Accidents Inside and Outside of Mines

| | | | | | | | М | onth | S | | | | | |
|--|-----------------------|-----------------|------------------------|-----------------------------|------------------------------------|------------------------------------|--------------------------|-------------------|--------------------------------|---------|---|-----------|------------------------------|--|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Causes of Accidents Inside Falls of coal, Falls of slate, Falls of roof, Mine cars, Explosions of gas and dust, Explosions of powder and dynamite, Fremature blasts, Falling into slopes, etc. By mules, Machinery, Miscellaneous, | 5 6 6 1 1 | 1 2 2 - | 1 1 1 1 1 1 1 2 | 3 1 5 1 1 5 2 3 | 2 2 1 5 4 1 | 4 1 5 2 3 2 | 4 5 2 2 | 4 5 1 2 1 | 1 1 3 1 2 2 | 1 3 3 | 3 1 3 1 2 1 6 | 3 4 3 2 1 | 3 1 2 27 47 19 9 17 5 5 1 20 | 16.48 1.10 14.83 25.82 10.44 4.95 9.34 2.75 2.75 .55 10.93 |
| Totals. Causes of Accidents Outside Cars. Machinery. Miscellaneous, | 24 | 6 = = 1 2 | 12 = 1 2 1 | 21 1 1 | 17 = - 1 | 18 == 1 2 | 15 == 1 | 17 == 3 | 1 1 | 8 = = | 1 | 16 == | 182 6 6 15 | 22.22 22.22 22.22 55.56 |
| Totals, | 3 27 | 3 9 | 16 | 23 | 19 | 3 21 | 3 18 | 3 20 | 2 13 | 8 | 1 18 | 17 | 27 200 | 100 |

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|---|-----------------|----------|-------|-------|-------|------------------|------|--------|-----------|---------|----------|----------|-----------------------------|
| | January | February | March | April | Мау | June | July | August | September | October | November | December | Totals |
| Inside Miners. Miners laborers. Drivers and runners. Doorboys and helpers. Company men. Totals. Contride Slatepickers thoys). All other employes. Totals, | 5 =5 | 1 === | 1 | 10 2 | 1 1 1 | 1 4 == | 1 | 13 == | 1 | | 1 1 2 == | | 31 15 3 1 3 |
| Grand totals inside and outside, | | 1 | 5 | 14 | - 2 | 4 | 1 | 14 | 2 | 4 | 2 | 7 | 6 |

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|---|---------------------------|-----------|----------------------|------------------|-----------------------|-----------------|------------|-----------|-----------------------|------------------|----------------------------------|----------|------------------------------------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Inside Fire bosses and assistants, Miners, Miners' laborers, Drivers and runners, Doorboys and helpers, Pumpmen, Company men, All other employes, Totals, | 3 7 6 5 3 | 3 1 1 1 1 | 5 2 3 2 | 10 5 3 | 8 3 1 1 2 | \$ 5 1 1 1 3 18 | 5 6 2 2 15 | 6 4 3 1 3 | 1 1 1 1 1 | 3 2 2 2 | 9 2 2 1 1 1 17 | 9 3 1 | 3 42 27 6 1 21 5 |
| Outside Blacksmiths and carpenters. Statepickers (boys), Bookkeepers and clerks, All other employes, | 1 | 3 | 2 | 1 | 2 | 1 | 2 | 1 | | | 1 | 1 | 1 1 1 1 1 1 1 |
| Totals, | 3 27 | 9 | 16 | 23 | 19 | 3 21 | 18 | 3 20 | 13 | 8 | 18 | 1 17 | 27 209 |

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | | | |
|----------|---------|----------|--------|-----------------|-----|-------|------|----------------------------|-----------|-------------|----------|----------|--------|--|--|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals | | |
| Married. | 2 | | 1 1 | 2 8 1 | | 1 | 1 | 3 1 1 1 1 2 | i | 1 1 1 | 1 | 1 4 2 | | | |
| Totals, | 5 | - 1 | 5 | 14 | *> | 4 | | 1.1 | 2 | 1 | 2 | 7 | | | |

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

| | | | | | | | | | | | _ | | |
|--|---------|-------------------------------|--------------------------------------|------------------------------------|--|-------------------------------------|----------------------|--------------------------------------|-----------|------------------|-----------------------|----------|--|
| | : | | | | | | Mon | ths | | | | | |
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| American, English, Welsh, Irish, German, Polish, Italian, Slavonian, Jithuamian, Austrian, Russian, Stussian, Swedish, | 5 2 6 | 2 1 3 2 1 | 8 1 2 1 1 1 1 1 | 5 1 11 1 1 | 2 3 1 2 7 1 1 1 1 1 | 4 1 4 1 2 6 2 | 1 2 9 2 | 4 1 3 1 6 1 2 1 | 1 1 1 4 | 1 1 1 3 | 2 1 5 1 8 | 5 1 1 1 | 40 4 22 10 11 70 22 13 16 2 |
| Totals, | 27 | 9 | 16 | 23 | 19 | 21 | 18 | 20 | 13 | , , | 18 | 17 | 2:9 |

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each person

| Average number of cubic feet per minute provided for each person | 518 | 675 460 452 1,031 | |
|--|---|--|--|
| Number of persons employed shiring | 432 | 439 403 1130 227 521 | |
| Number of cubic feet per- minute passing out at out- fet | 275,190 | 401,540 189,156 240,605 127,500 423,500 420,730 | |
| Total quantity of air per minute circulating in all the splits in cubic feet | 223.820 | 296,710 144,120 182,240 98,260 304,770 | |
| Number of cubic feet of air per minute entering the mine at inlet | 270,600 | 215,850 215,850 309,780 | |
| Number of splits of air cur- | | 81 11 11 11 11 11 11 11 | : : : : |
| Power used | Steam, | Steam, Steam, Steam, Steam, | Steam, |
| nsì lo əmsV | Guibal, | | Guibal, Guibal, |
| Water gauge developed—in | 1.25 | अ थ लाख वाच्याचाचा चाच छाछा ह्यां | TO IG |
| Number of revolutions per minute | 48 | • | 080 |
| 19epth of blades in feet | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | လ်လ ထည်ဆိုလ်လ လိယ်သည်လ | 6.3 |
| teet in real to divivi | 11.6 11.9 11.9 7.11 | 11.9 11.9 11.9 11.9 11.9 8.0 8.0 8.0 11.9 11.9 | ∞ ∞ 21 |
| Diameter of fan in feet | 355 24 25 25 25 25 25 25 25 25 25 25 25 25 25 | 24.06 24.66 3.83 24.66 3.83 24.66 | 65 61 16 44 |
| Method of ventilation |] 2 fans, [] 2 fans, [| 2 fans, [2 fans, [2 fans, [Fan | 2 fans, (|
| snosseg-uou 10 snosseg | Gaseous, Gaseous,. Gaseous,. | | |
| Kind of opening | Shaft, Slope, Shaft, | | |
| Names of Operators and Mines | Lehigh and Wilkes-Barre Coal (Grey- Hollenback Colliery- Hollenback No. 2. Hollenback No. 3. Hollenback No. 3. Hollenback No. 3. | South Wilkes-Barre Colliery— No. 1, No. 2, No. 5, No. 5, No. 5, Stanton Colliery— Alabott F Empire, Sugar Notch No. 9, Maxwell Colliery— Haltimose Perl Ash, | Palliman Padlimore,† Red Ash,† Hillman, |
| | Wind of opening Wind of opening Width of blades in feet Width of blades in feet Width of blades in feet Winnber of revolutions per inches Wamber of splits of air per Wumber of splits of air cur- Foral quantity of air per minute of cubic feet of air Wumber of cubic feet of air Wumber of splits of air cur- Foral quantity of air per Wumber of splits of air cur- Foral quantity of air per Wumber of cubic feet of air Splits in cubic feet of air Wumber of cubic feet per Wumber of cubic feet per Wumber of cubic feet per Splits in cubic feet per Splits in cubic feet per Wumber of persons employed Splits in cubic feet per The construction of the co | Shift, Gaseous, 2 fans, 1119 8 8 9 9 9 6 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |

*Reserve fan.

| | | | 1 | | |
|---|---|--|--|--|--|
| 409 | 231 262 262 | 248 386 612 | 487 | 294 328 187 187 | 384 420 460 |
| 270 | 2111 268 69 69 | 301 | 258 | 250 93 105 | 355 62 855 |
| 87,100 124,000 161,300 | 64,850 87,100 23,912 23,912 | 146,110 211,960 45,900 | 202, 563 202, 040 | 169,750 63,850 40,150 125,820 | 34,200 22,000 161,300 |
| 83,390 80,000 116,240 | 48,840 80,700 18,066 15,066 | 74,680 138,540 30,600 | 125, 576 102, 030 | 73,650 30,575 19,675 69,430 | 136,200 29,400 17,200 131,000 |
| 113,425 120,000 169,250 | 64, 590 87, 100 21, 448 21, 448 | 139, 820 176, 950 37, 700 | 158,055 | 142, 800 53, 475 34, 950 115, 670 | 31,300 20,000 150,800 |
| ∞ ∞ ∞ | 410-4 | ∞ 0 ¹ 0 0 | 100 | ට් ල හා* ල : | 11 2 2 3 1 |
| Steam, Steam, Steam, | Steam,} | Steam, | Steam, | Steam, Steam, Steam, | Steam Steam, Steam, |
| Guibal, Sturdevant, Guibal, | Guibal, | Guibal, Guibal, | Guibal | Guibal Guibal, Guibal, | Guibal Guibal Guibal, |
| 92010000 | 11.0 | 1.6 | 1.9 | ⊕.∞.∞.∞. rc | 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| 66 66 103 88 88 88 88 | 22223 | 60 60 72 72 | 59 | 138883 | 39 76 100 44 |
| 00 00 00 00 00 00 00 00 00 00 00 00 00 | 600000 | ∞∞∞∞ | 10.2 | 0. 4446. 0. 0. 0.00 | 9.10 10 3 2.7 7.10 |
| ∞ ⊕⊕614∾⊕ | စ် အသ လ ထ | 00 00 00 to | 10 | 8 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 | 9.466.9 |
| 2222 2008 2008 2008 2008 2008 2008 2008 | នគង់នន | 8888 | 35 | 02 112 122 123 124 125 125 125 125 125 125 125 125 125 125 | 254 10 35 35 35 35 |
| 2 fans, 2 fans, 3 fans, Natural, Natural, | Fan, | 2 fans, [| Fan, |] 2 fans, [] 2 fans, [] Fan, |] 2 fans, [] 2 fans, Fan, |
| Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Non-gas. Non-gas. | Gaseous,. Gaseous,. Gaseous,. Gaseous,. | Gaseous,. Gaseous,. | Gaseous, Gaseous, | Gaseous, Gaseous, Gaseous, Gaseous, Non-gas. | Gaseous, Gaseous, Gaseous, Gaseous, |
| Shaft, Shaft, Shaft, Shaft, Shope, Slope, Slope, Tunnel, | Tunnel, Slope, Shaft, Shaft, | Shaft, Shaft, | Shaft, | Slope, Slope, Slope, Slope, Slope, Slope, Slope, Slope, Slope, | Shaft Shaft Tunnel, Tunnel, |
| Susquehanna Coal Co. No. 5 Colliery— No. 2. No. 4. | No. 6 Colliery— No. 6. No. 6. No. 6. No. 6 South, No. 7, No. 7, | No. 7 Colliery— No. 1 South, No. 1 North, George vein No. 1 North, | Lehigh Valley Coal Co. Dorrance Colliery— Baltimore, | Franklin Colliery— Rock, Rock, Long, Long, Sump, Franklin, Warfor Run, | Delaware, Tackawanna and Weetern Railroad Co. Bliss Colliery— Bliss, Pliss, Flass, Flass, Flaspy, Espy, Espy, Auchincles Colliery— Nos. 1 and 2, |

*Old workings.

| REPORT OF 1 | | 1110111111 | 01 | MINES | | OIL. I |
|--|---|---|--|---|------------------------------------|---|
| oldus to rumber of cubic tot behivorg summing profits each person | 929 | 1.311 945 474 625 | 175 | 610 | SS XS | 03 |
| Zumber of persons employed | 9. | | 136 | 11 | 136 | 8 |
| Yumber of cubic feet per -Juo is inc garsing out- | 21, S@0 | 100, e00 60, 950 112, 850 61, 354 | 54.640 60,4 0 | 146,060 | 122,000 | 0.8,80 |
| req ris to ythusup latoff odd lla ni guideliordo obunian bod olduo ni stilqs | 63,6+0 | \$0,000 46,300 91,100 56,000 | 22,060 | \$0,590 | 46,000 | 13,40 |
| als to teel oldno to redmix of. Eniteting cluming ten feltilis enim | 69, 800 | 희현진병 | 53, 850 58, 120 | 86, 030 136, 950 | 105,000 | 4 |
| -and the lot stills to redund. | t- :: | 10 71 t- +- | | 65 44 | | 2) |
| Power used | Steam | Steam Steam Steam | Steam | Steam | Steam | Meann |
| nsl lo smsX | Guibal | Guibal, Guibal, Guibal, | Vulcan, | Guibal, | Guilbal, | Tanaqua |
| ni-bedoleveb egung reflection | 61 | S-11:15 | 1.4 | ∞ t- | c) | £. |
| Yumber of revolutions per shring | 06 | 89 99 SI | 6.6 | 82.06 | 80 | Ç. |
| teel ni sebald to diqed | co : : | 10 to 8 to | ණ. ආ ආ ආ | rc 4 | 9.0 | or |
| Tridth of blades in feet | e | 10 to ∞ 5 | 10.10 | 70 10 80 44 | 4.6 | 10 |
| Diameter of fan in feet | 61 : : | 10.10.4.4. | 1010 | 20 | 17 | % |
| Method of ventilation | Fan, | Fan. Fan. Fan. | Fan. | Fan | Fan, | Fan, |
| Queents of non-greens | Gaseous Gaseous,. Non.gas. | Gaseous,. Gaseous,. Gaseous,. | Non-gas. | Gaseous,. | Non-gas. | shaft Gaseous Fan |
| Zainego lo baiA | Slope Tunnel | Shart tr | Slope, | Shaft | Shaft | shaft |
| Names of Operators and Mines | Truesdale Colliery— Mills. Nos. 1 and 2.* | Alden Coal Co. Red Ash No. 1, Ross vein No. 1, No. 2 shaft, No. 2 shaft | Red Ash Colliery— Red Ash Colliery— Red Ash No. 1. | Itelaware and Hudson Co. Conyngham Colliery— Hillman. Baltimore. | Pittston Coal Mining Co. Hadleigh, | Wilkes-Farre and S rant n Coal and ben C. Hillman vein. |

*Fan ver of steeted,

TABLE 1.-Operators, location of collieries, railroads, etc.

| y Name of General Post Office Name of Superintendent. Post Office Railread to Min- Superintendent | (W. H. Herring, Out-) side Supt. Side Supt. Morgan R. Morgan, In-) Wilkes-Barre, C. R. R. of N. J. side Supt. Douglas Butting, Chief Engineer. | Robert A. Quin, Wilkes-Barre, Francis H. Kohlbraker, Nantic ke, Pennsylvania | S. D. Warriner, Wilkes-Barre, F. E. Zerbey, Wilkes-Barre, Lebigh Valley | R. A. Phillips, Scranton, H. G. Davis, Kingston, D L. and W. | K. M. Smith, Alden Station, James G. Turner, Alden Station, C. R. R. of N. J. | S. V. Tench, Wilkes-Barre, S. V. Tench, Wilkes-Barre, C. R. R. of N. J. | C. C. Rose, Seranton, E. R. Pettebone, Derranceton, D. and H. | M. W. O'Boyle, Pittston, c'has H. Walker, P'ains, C'. R. R. of N. J. | J. D. Caryl, Wilkes-Barre, To-high Valley |
|--|---|--|---|---|---|---|---|--|--|
| Name of G | C. F. Huber | Robert A. Q | S. D. Warrh | R. A. Philli | K. M. Smith | | C. C. Rose, | M. W. O'Bo | J. D. Caryl, |
| County | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne | Luzerne, | |
| Names of Operators and Collectes | Lehigh and Wilkes-Barre Coal Co. Hollenback, South Wilkes-Barre, Stanton, Sugar Notch, Maxwell, Lersey washery, | Susquehama Coal Co. Colliery No. 5. Colliery No. 6. Colliery No. 7. | Dorrance. Penaldin. Warrior Run. | Delaware, Lackawanna and Western Railread Co. Anchineless, Bliss, Trues lale, | Alden, | Red Ash Coal Co. Red Ash No. 1. Red Ash No. 2. | Delaware and Hudson Co. | Pittston Coal Mining Co. Hadleigh, | Wilkes-Barre and Seranton Coal and Iron Co. Hillman, |

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder and dynamite used, etc.

| | 1 | <u> </u> | | | | |
|---|---|-----------------|--|-------------|---|----------|
| Number of horses and mules | 891183 1183 | 449 | 144 | 404 | 107 | 242 |
| Number of pounds of dynamite used. | 59, 295 120, 075 41, 109 8, 685 62, 334 | 290,898 | 290,898 =================================== | 184, 724 | 34,860 31,951 11,537 | 48,351 |
| Number of kegs of powder used | 7,447 10,219 12,119 7,197 13,227 | 50,129 | 50, 129 14, 454 15, 383 | 86, 169 | 12,067 10,692 5,632 | 28,391 |
| Number of non-fatal accidents | 급왕함교환 | N 61 | 89 | 1 4 | 1 70 7 | ଛି |
| Number of fatal accidents | ကောင်း- က | 19 | 19 | .: t~ | 60.01 | 0.0 |
| Number of employes | 668 11, 642 1, 642 | 3,962 | 1,257 | 3,591 | . 717 596 880 | 1,613 |
| Number of days worked (Totalis are averages, not including washeries) | | 933 943 | 221 1221 1211 | | 242 256 219 | 239 |
| Total production of coal in tens | 369, 253 117, 740 204, 620 120, 382 101, 386 | | 1,994,439 ==================================== | 1, 234, 491 | 335,100 277,137 175,732 | 788, 029 |
| Number of tons sold to local trade | 10, 201 10, 254 10, 254 10, 272 | | 118, 231 | | 61, 901 4, 034 1, 663 | 70,598 |
| Number of tons used at collieries | 10.83.51 10. | 174, 376 | 158,542 16,038 11,252 | 177,573 | 21,420 19,920 23,212 | 64,552 |
| Number of tons of coal shipped | 20x, 010 233, 92x 200, 000 201, 150 160, 0x7 | 90, | 326,148 | 1,033,212 | 248, 779 253, 183 150, 917 | 652,879 |
| County | Luzerne, | Luzerne, | Luzerne, | | Luzerne, | |
| Names of Operators and Collieries | Lehigh and Wilkes-Barre Coal Co. Hollenback. South Wilkes-Barre, Starmton, Starm Notch.* | Jersey washery, | Colliery No. 5. Colliery No. 6. Colliery No. 6. Colliery No. 6. Colliery No. 7. Totals, | Dorrance, Lehigh Valley Coal Co. Franklin, Warrior Run, | Totals, |

"Sugar Notch breaker destroyed by fire in March; coal prepared at Maxwell breaker the remainder of the year.

| Polaware, Lackawanna and Western R. R. Co. Internations. Illus. Truesdate, i | Luzerne, | 155, 329 489, 497 14, 549 | 21,500 25,072 1,108 | 6,878 1,682 | 183,698 466,251 15,657 | 198 299 299 | 457 938 416 | - 98 | 11. | 4,530 14,174 2,578 | 12.76° 8,867 6,66° | 515 |
|--|----------|---------------------------------|---------------------------|----------------|------------------------------|-------------------|-------------------|------|------------|--------------------------|--------------------------|-------|
| Totals, | | 609,366 | 47,680 | 8,560 | 909,599 | 147 | 1.85 | 10 | C1 (| 21,282 | 28,098 | 87 |
| Alden, L | Luzerne, | 250, 263 | 12,000 | 5,475 | 267.738 | 238 | 989 | ıo | | × 97.5 | 17,750 | 68 |
| Red Ash No. 1, \$\frac{1}{2} \text{Red Ash No. 1, \$\frac{1}{2} \text{Red Ash No. 2,} \text{Lend Ash No. 2,} \text | Luzerne, | 219,790 | 14,020 | 1,246 | 235,056 | 210 | 2225 | - 00 | 4.00 | 1,892 | 7,125 | 8.88 |
| Totals, | | 219,790 | 14,020 | 1,246 | 235,056 | 211 | 261 | 7 | 13 | 4,166 | 11,975 | 53 |
| Pelaware and Hudson Co. Conyngham, L. | Luzerne, | 120,454 | 23,824 | 6,448 | 150,726 | 175 | 376 | = | 9 | 3,681 | 1,430 | 43 |
| Pittston Coal Mining Co. Hadleigh, | Luzerne, | 85,299 | 10,000 | 618 | 95,917 | 176 | 606 | | 60 | 3,600 | 4,100 | 20 |
| Wilkes-Barre and Scranton Coal and Iron Co. Hillman, | Luzerne, | 396 | 8,760 | 4, 834 | 13,990 | 47 | 63 | | | 67 | 2,275 | « |
| Grand totals, | | 4,689,325 | 516,951 | 239,716 | 5,445,992 | 189 | 12,968 | 61 | 919 | 155,706 | 572,918 | 1,453 |

*Started to prepare coal in November.

TABLE 2.—Recapitulation

| 501 | 404 | 87 | 68 | 53 | 4.5 | 20 | 00 | 1,453 |
|----------------------------------|------------------------|---|----------|------------------|-------------------------|--------------------------|---|-------------|
| 290,898 | 168,041 | 28,018 | 17,750 | 11,975 | 1,430 | 4,100 | 2,275 | 572,918 |
| 50, 12) | 36, 169 | 21, 282 | 8,255 | 4,166 | 3,681 | 3,600 | 999 | 155, 706 |
| 68 | 176 | 101 | 4 | 12 | 9 | 63 | П | 203 |
| 19 | t-10 | 10 | LC | 4 | 11 | : | : | 61 |
| 4,4002 | 3,591 | 1.851 | 686 | 100 | 376 | 999 | Ĉ. | 12,168 |
| 239 | 950 | 147 | 886 | 211 | 17.0 | 176 | 1- | 189 |
| - | 1,234,491 | | | | | | | 5,445,902 |
| 118, 231 | 23, 706 | S, 560 | 5, 475 | 1,246 | 6,448 | 618 | 4,834 | 239,716 |
| 158,542 | 177,573 | 47,680 | 12,000 | 14,020 | 23,824 | 10,000 | 8,760 | 516,951 |
| 1,717,666 | 1,033,212 | 609, 366 | 250, 263 | 219, 790 | 120,454 | 85, 299 | 336 | 4, 689, 325 |
| | | | Luzerne | | | | <i>-</i> | |
| Lehigh and Wilkes-Barre Coal Co. | Susquehanna Coal ('o., | Delaware, Lackawanna and Western R. R. Co., | | Red Ash Coal Co. | Delaware and Hudson Co. | Sittston Coal Mining Co. | Wilkes-Barre and Scranton Coal and Iron Co) | Totals, |

TABLE 2.—PART 2.

| | REPORT OF THE | DEPARTMENT O |
|-------------------|------------------------------|--|
| | Zumber of air compressors | 1-20:2001 60 : 16 |
| | Number of clearing dynamics | |
| face | Quantity delivered to sur | 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8 |
| | Capacity in gallons per minu | 12, 750 1, 800 1, 800 1, 800 1, 800 1, 800 800 800 800 800 800 800 800 800 800 |
| Buin | Number of pumps delive | 25 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |
| | Total horse power | 20,191 11,400 4,250 5,916 1,375 1,112 2,337 300 558 47,439 |
| [sil | Number of steam engines of | 257 63 40 30 30 16 35 10 7 |
| ves | oiriosid | |
| Locomotives | | H4 |
| Lo | Steam | N 00 00 10 10 10 10 10 10 10 10 10 10 10 |
| | Total horse power | 10, 628 12, 164 4, 750 3, 284 1, 035 1, 125 1, 125 1, 050 1, 050 1, 050 |
| Boilers | Horse power | 9, 358 10, 764 4, 750 3, 284 1, 125 11, 050 1, 050 |
| Number of Boilers | TsluduT | 84 24 25 25 191 |
| Numh | T9W0G 98TQH | 1, 270 1, 400 1, 035 3, 705 |
| | Cylindrical | 83 |
| | County | Глагетве |
| | Names of Orerators | Lehigh and Wilkes-Barre Coal Co Susquehanna Coal Co Lehigh Valley Coal Co Delaware, Lackawanna and Western R. R. Co Alden Coal Co Bed Ash Coal Co Delaware and Hulson Co Pittstem Coal Mining Co Wilkes-Barre and Seranton Coal and Iron Co Totals. |

TABLE 3.-Number of each class of employes inside and outside of mines

| | əbisinə bur əbisni firlət burrdə | \$3525 EX56\$ | 6. 962 453 | 4.942 | 1.112 | 3,591 | 717 880 880 | 1,61* |
|---------|--|--|-----------------|---------|--|---------|---|--------|
| | Total outside | 1955 202 234 65 265 | 964 | #8° | 422 398 367 | 187 | 160 160 162 | # H H |
| | anyolqma ranto IIA | \$3 87 87 112 112 | 418 | 440 | 200 191 188 | 579 1 | 82.88 | 900 |
| | Вооккееретѕ яла стеткя | 44 44 63 63 63 | 21 | 17 | 900 | 18 | 4.000 | 10 |
| ide | Slate pickers (men) | 28 84 40 | 111 | 111 | St co ∞ | 44 | 14 10 20 | 66 |
| Outside | (syod) stadyliq etals | 5851 | 248 | 528 | 102 | 279 | 888 | 64 |
| | Ingineers and fremen | 83 12 8 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 135 | 137 | 55 4 65 | 162 | 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 47 |
| | Blacksmiths and carpenters | 91-1-55 | 000 T | - t | 250 | 101 | 113 | 36 |
| | ьотете | нанан | 15 | 9 | | 60 | | 60 |
| | Superintendents | | :: | | | П | | - 1 |
| | əbiani latoT | 473 720 709 777 | 2.998 | 2,998 | \$35 714 \$55 | 2 4.14 | 1557 41.6 22.8 | 1,201 |
| | All other employes | 158 16 14 | 196 | 196 | 1111 | 316 | 173 | 274 |
| | nem yang men | 86 150 48 121 | 45 | 405 | 50 334 | 119 | | |
| | иәшдшп.Д | co 01 00 64 tO | 15 | 15 | 10 4 6 | 60 | ਚਚ ਰ | 61 |
| | Door boys and helpers | 80° - 60° | 230 | 230 | 36 | 98 | 12 2.10 | 49 |
| Ins | Drivers and runners | 12233 | 294 | 294 | 115 | 320 | 71 66 15 | 152 |
| | and all and a state of the stat | 114 150 136 95 238 | 1333 | 100 | 248 299 263 | 730 | 158 | 187 |
| | s19niM | 255 255 255 255 255 255 255 255 255 255 | 1,072 | 1,072 | 265 244 265 | 778 | 556 | 410 |
| | Fire bosses and assistants | 81120 | 39 | 39 | 11 61 | Si | 1-401 | 12 |
| | Assistant mine foremen | 0010 | 2 | oc. | 01 01 | ** | | 00 |
| | Mine foremen | | 9: | 9 | ୍ ପ୍ରଥମ ବର୍ଷ | 12 | 01 | 7 |
| | County | Luzerne, | Luzerne, | | Luzerne, | | Luzerne, | |
| | Names of Operators and Collierles | Lehigh and Wilkes-Barre Coal Co. Hollenback. South Wilkes-Barre, Stanton. Nugar Notch. | Jersey washery, | Totals, | Susquehanna Coal Co. Colliery No. 5. Colliery No. 7. | Totals, | Lehikh Valley Coal Co Dorrance, Franklin, Warrior Run, | Totals |

TABLE 3.—Continued

| | | | | | MILLAI | | | OII. L |
|---------|-----------------------------------|---|---------|----------------------|----------------------------------|----------|-------------------------|---------------------------------------|
| | trand total inside and outside | 4 17 938 416 | 1,851 | 9.99 | 235 | 564 | 376 | 577 |
| | 4bistuo fistoT | 125 263 226 | 614 | 209 | 197 | 265 | 118 | 82 |
| | All other employes | 60 114 85 | 259 | 95 | 63 | 181 | 20 | 39 |
| | Bookkeepers and clerks | 63 65 44 | 6 | 9 | . 63 | 2 | - | 1 |
| side | Slate pickers (men) | 10 t= | 35 | 29 | 34 | 34 | 15 | 60 |
| Outside | Slate pickets (boys) | 122 | 266 | 47 | 17 | 17 | 30 | 22 |
| | Engineers and firemen | 2112 | 83 | 133 | 11 5 | 16 | 15 | oo |
| | Blacksmiths and carpenters | is t-ib | 17 | 10 | 13: | 13 | 9 | 4 |
| 100 | Foremen | | · co | | - | - | H | - 1 |
| | Superintendents | | | | :- | - | : | - |
| | Total inside | 872 672 190 | 1,237 | 477 | 167 | 299 | 258 | 14 |
| | All other employes | 15 | 112 | | ¢1 | 63 | 8 | ¢1 |
| | Company men | 00 ct 00 | 120 | 45 | 67.67 | 54 | 49 | 15 |
| | Pumpmen | 01 01 | 10 | 6.3 | 60 | 60 | es | - |
| Inside | Door boys and helpers | 30 | 41 | 60 | 4.03 | 9 | = | 2 |
| Ins | Drivers and runners | 25.59 | * | 59 | 4.81 | t- 60 | જ | 1 1 |
| | Miners' laborers | 130 | 100 | 12 | 56 | 66 | 15 | 35 |
| | Miners | 109 205 85 | 379 | E | 35 88 | 94 | 8 | 75 |
| | Fire bosses and assistants | C310 H | 6 | 1 an | ::: | | 4 | - |
| | Assistant mine foremen | | - | -1 | | อา | : 1. | - :1 |
| | Maine torement | | 8 | | | 61 | - 1 | |
| | County | Luzerne, | | Luzerne, | Luzerne, | | Luzerne, | Luzerne, |
| | Names of Operators and Collierles | D. L. and W. R. R. Co. Auchincless. Bliss. Truesdale, | Totals, | Alden,Alden Coal Co. | Red Ash No. 1. Red Ash No. 2. | Totals, | Delaware and Hudson Co. | Pittston Coal Mining Co. Hadleigh, |

| _ | | | |
|---|----------|---------------|---|
| | 63 | 12,968 | |
| _ | 32 | 3, 919 | |
| _ | 16 | 1,878 | _ |
| | - | 109 | |
| | 9 | 303 | |
| | : | 983 | |
| | ಬಾ | 441 | |
| | C1 | 223 | |
| | H | 20 223 | |
| | | 9 | |
| | 11 | 9,049 | |
| | 63 | 809 923 | |
| | -3 | 808 | |
| _ | 63 | 464 66 809 | |
| | : | 464 | - |
| | 1 | 1,005 | _ |
| | S | 2,578 | |
| | 00 | 101 3,055 | - |
| | 61 | 101 | |
| | : | 13 | |
| | - | 29 | |
| | Luzerne, | | |
| Wilkes-Barre and Seranton Coal and Iron Co. | Hillman, | Grand totals, | |
| Wilkes-Ba | Hillman, | Grand | |

TABLE 3.- Recapitulation

| | 31 | = ==================================== | 24.0 | 2 23 | 33 | 00 |
|-------------------------------|---|--|--|---------------------------|--------------------|----------------|
| | 4,8 | 1,851 | ٠ - • | - N | | 12,968 |
| | 1,004 | 614 | 265 | 00 | 32 | 3,919 |
| | 579 | 266 | 12.8 | 330 | 16 | 1,878 |
| | 17 | £ 6. 9 | 001- | | H | 13 |
| | 111 | 388 | 60 H | 900 | 9 | 303 |
| | 273 | 266 47 | 30 | 13.5 | : | 983 |
| | 137 | 382 | 15 | 00 | LO. | 441 |
| | 34 | 113 | 133 | 4 | C I | 601 |
| | C 00 | | | - | _ | C ₂ |
| | : | - i- | · prot | П | - | 9 |
| | 2,404 | 1,237 | 299 | 141 | 31 | 9,049 |
| | 316 | 112 | 7.5 | 61 | 2 | 85 |
| | 405 119 | 120 | 54 | 10 | t~ | 808 |
| | 5 61 5 | 1 to 61 | 60 00 | - | \$1 } | 99 |
| | 98.8 | £ = ¥ | 911 | [| | 464 |
| | 320 | 94 | 13 63 | 13 | 1 | 1,005 |
| | 733 | 473 | 66 | 100 | S | 2,578 |
| | 1,072 | 379 | 94 | iô t | 00 | 3,055 |
| | 6882 | 0.00 | : 4 | - | C1 | 101 |
| | ∞ 4 € |) | 67 | : | : | 13 |
| | 9 9 7 | r es == | 61 - | _ | ⊢ ¦ | 62 |
| | | Luzerne | | | | |
| Lahigh and Wilkes-Barre Coal) | Susquehanna Coal Co., Lehigh Valley Coal Co. | D., L. and W. R. R. Co., | Red Ash Coal Co. Delaware and Hudson Co. | Pittston Coal Mining Co., | Coal and Iron Co., | Totals, |

TABLE 3. -PART 2.

| | | | | | Ž. | Number of Days | Days | Worked | ü | Breaker | | | | |
|---|----------|--|----------|----------|---------|------------------|----------|--------|----------|-----------|----------|------------|--|---|
| Names of Operators and Collicries | County | January | Pehruary | Матей | . lindA | May | lune | Alut | tsu2uA | September | Todobo() | Zovember | Тэесетрет | Total |
| Lehigh and Wilkes-Barre Coal Co. Hellenbark. South Wilkes-Barre. Stanton. Sugar Notch, Maxwell. | Luzerne, | 1313 | 19251 | <u> </u> | ត។ន ॥ | 888888 888888 | 815685 | 11988 | 8315315 | ল গলে ল'ল | 84854 | สลสสล | 02 5 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 85252 87252 |
| Susquehanna Gal Go. | Luzerne, | 11 12 14 15 15 15 15 15 15 15 15 15 15 15 15 15 | EE2 | 222 | នានាគ | ន្តែ | 81888 | និត្តិ | 222 | 1 227 | ESE | 113 113 | ននេត | 1999 |
| Lechigh Valley Coal Co. Lechigh Valley Coal Co. Peruklin. Warrior Run. | Luzerne, | 8.22.61 | 13 12 | 888 | ននាត | 884 | 18 23 23 | 118 | 12 22 | 3144 | 222 | 51516 | 81814 | 213 |
| Delaware, Lackawanna and Western R. R. Co. Anchineloss, | Luzerne | 14 19 | 11. | 18 | 116 | 28 | 118 | 13 | 16 | 114 | 12.8 | ลิส+ | 815 N | 19 86 86 86 86 86 86 86 86 86 86 86 86 86 |
| Alden, Alden Coal Co. | Luzerne | 67 | 18 | 19 | = | 12 | 81 | | 16 | e1 | 21 | 84 | 19 | 867 |
| Red Ash Co., Red Ash Coal Co. Red Ash No. 2. | Luzerne | 15 | 10.10 | 18 | 22 | ลล | 188 | 155 | \$ 61 63 | 55 | 22 | 1-1- | t-t- | 210 |
| Conyngham, | Luzerne, | 17 | 13 | a | 13 | 18 | 1. | 13 | 13 | 129 | 1+ | 13 | 11 | 17.5 |
| Hadbigh, Pittston Coal Mining Co. | Luzerne, | 17 | 15 | 15 | 1 22 | 18 | 12 | 00 | 1- | . = | 1-1 | 16 | 1 22 | 176 |
| Wilkess Barne and Seranton Coal and Iron Co. Hillman. | Luzerne, | 1 12 | 13 | t- | | | | | | 4 | C1 | 65 | 60 | E |
| | | The second secon | | | | | | | | | | | | |

TABLE 4.-Fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Fatally injured by a fall of slate. Died | Instanty killed by a fall of top coal. Instantly killed by a fall of top rock. Fatally injured by a premature blast. | Instantly killed by a premature blast. Instantly killed by falling under moving | | railroad car. Outside. Instantly killed by a fall of rock. The control billed by a feet of the coreen. | ing pocket collapsing, causing these two men to be buried under the timber | and diff. Outside. Fatally injured; squeezed between rail- | Farally injured by premature blast. Died April 25. | These ten men were being lowered down the shaft when the rone broke. The carriage fell to the hotten of the shaft, a distance of about 40 feet. They were all instantly killed. | nstantly killed by clothes catching on a paracter of the parac | Instantly killed by a premature blast. Fatally injured, squeezed between a loaded and an empty car. |
|---------------------------------------|--|--|---|----------------------------|--|--|--|---|---|--|---|
| County | | | | Luzerne, | | - | PM 440 81 | | Luzerne, | | Luzerne, |
| Name of Mine | Hollenback, | Auchincloss, Stanton, | Colliery No. 6, Bliss, | So. Wilkes-Barre, Maxwell, | Stanton, | Stanton, | Bliss, | Franklin, | Conyngham, | Colliery No. 7 | Dorrance, |
| Number of orphans | ల | 10 e1 H | :: | ÷4 : | 4 | 63 : | 2 | : | 0440 40 | 9 : | - : |
| swobiw 10 19dmuN | | | - : | H : | | | | : | | - : | pm4 : |
| | M. | ZZZ | in Z | Σw. | M. | Z.Z. | M. | vi | | N.Z | N.K. |
| 93K | 92 | 30 53 45 | 13 | 1335 | 88 | 28 | 27 | 61 | ###################################### | | \$ 8] |
| uothaqueoO | Miner, | Miner, Miner, Miner, | Miner, | Laborer, | Miner, | Laborer, | Loader, | Miner, | Miner, Miner, Miner, Miner, Miner, Miner, Miner, Miner, Miner, Miner, | | Laborer, |
| Vationality | Welsh, | Polish English, | English, | Lithuanian, | Russian, | American, | Russian, | Polish, | German. German. Canadian. Pelish. Polish. Russian. Russian. | Polish | Polish, |
| Name of Person | Thomas Reese, | Anthony Kenyoski, Thomas Watson, Joe Munick, | George Younger, | Charles Doboditus, | Mike Rush, | Charles Staley, | Luke Pesovitch, | Felix Besenski, | Wm F Haney, Frank Reyal, Lawrence Warick, Lawrence Warick, August Zayancey, Harry McGraw, Michael Zavants | Anthony Zilviel Barney Koschor | Peter Lubinski, Patrick Wal-h, |
| 'attantan la arr | 10 | 조현철 | 21.2 | s s | Ξ | <u> </u> | 9-44 9-41 | 51 | 555555555 | 188 | 812 |
| Date of accident, | Jan. | | Feb. | March | | | April | | | | Max |

| 11 | |
|---------------------------------------|--|
| Nature and Cause of Accident in Brief | Fatally injured; struck by trip of cars on plane. Instantly killed by a fall of coal. Instantly killed by a fall of coest. Sufficated by gas. Instantly killed by a rall of top coal. Surficated by gas. Instantly killed by a fall of rock. Instantly killed by a fall of top coal. Instantly killed by a fall of rock. Struphme. Outside. Fatally injured by a fall of coal. Struphy outside. Fatally injured by a fall of coal. Struphy injured by a fall of coal. Struphy injured by a fall of rock. Fatally injured by a fall of rock. Fatally injured by a fall of coal. Struphy injured by a fall of rock. Fatally injured by a fall of coal. Struphy injured by a fall of rock. Fatally injured by a fall of rock. Fatally injured by a fall of coal. Struphy injured by a fall of rock. Fatally injured by a fall of coal. Fatally injured by a fall of coal. Fatally injured by a fall of coal. Fatally injured. Squeezed between culm can and breaker; died October 25. Out- |
| County | Luzerne, |
| Name of Mine | Dorrance, Stanton, Stanton, Stanton, Stanton, So, Wilkes-Barre, Aiden, Colliery No. 7. Truesdale, T |
| Number of orphans | 1 |
| swobiw to redmuN | 1 00 1 00 1 00 1 0 4 1 0 4 0 |
| Married or single | w E E Exelegater E ver ver were |
| Age | 4 748888 486 4 4888848888988 6 4 4 9 |
| Occupation | Laborer, Laborer, Laborer, Miner, Ratcher, Patcher, Laborer, Co, miner, Miner, |
| Vathanality | Lithuanian, Welsh Polish Polish Folish Polish Polish Polish Polish Polish Polish Polish Polish Folish Folish Folish Folish Folish Folish Wastrian Folish Folish |
| Name of Person | John Urbin, William P. Price, Matt sopvinski, Michael Buck, John Levik, John Pavis, Eddie Flert, Anthony Sciowski, John Pavis, John Lovett, John Lovett, John Lovett, John Lovett, John Linete Kenger Granater, John Linete Kenger Junete John Linete Kenger Junete John Linete John Linete John Linete John Linete Kenger Junete John Linete John Junete |
| Date of accident, | May 20 July 28 July 28 July 28 July 28 July 28 July 28 July 28 July 29 July 20 |

*Widower,

| Instantly killed by a fall of rock. Slightly burned by gas and fatally injured by falling down chamber. Died | same day. Fatally injured by falling in front of moving trip of loaded cars. | Fatally burned by burning stick of dyna- mite in his boot leg. | Struck by loaded car and fatally injured. Instantly killed by a fall of rock. Fatally burned by gas. Died December 18. Fatally injured by a fall of rock. Died December 13. | Instantly killed by a fall of top coal. Fratally injured by a fall of top coal. Instantly killed by runaway car. |
|---|--|---|---|--|
| | | | Luzerne, | |
| Colliery No. 7, | Driver, 17 S Colliery No. 7, | inick, Lithuanian, Miner, 26 M. 1 3 Bliss, | S. Alden, M. 1 So. Wilkes-Barre, M. 1 2 Maxwell, S. Stanton, | S. So. Wilkes-Barre, S. Dorrance, S. Franklin, |
| 1 3 4 | : | es | 11 | |
| M. | vi | W. | % <u>₹</u> ₹% | www. |
| 33 | 12 | . 26 | 48888 | 255 |
| Laborer, | Driver, | Miner, | Laborer, 24 Laborer, 26 Miner, 28 Laborer, 32 | Laborer, 18 Laborer, 25 Footman, 24 |
| American, | German, | Lithuanian,. | Polish, Polish, Polish, Russian, | Polish, Russian, Irish, |
| 24 Reuben Everland, American Laborer 39 M. 1 4 Colliery No. 7, 26 John Martin, English, Miner, 31 M. 1 3 Bliss, | Nov. 18 Jos. Kennite, | 22 Anthony Kluchnick, | 1 Jos. Verecotch, 5 Victor Tom, 7 John Brown, 9 John Dyvitch, | 16 Martin Croski, 16 Andrew Yorokofki, 29 Patrick Murphy, |
| 26.28 | 130 | 87 | 1000 | 16 29 |
| Oet. | Nov. | | Dec. | |

TABLE 5.-Non-fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Injured about kidneys and thigh by a fall of bony oral. Jeg fractured by a fall of rock. Shoulder cut by a fall of rock. Leg broken and haldy cut; struck by car. Lieg broken and haldy cut; struck by car. Finger cut off; prop rolled upon it while helping to pull a car off the cage. Finger cutshed and head cut by a fall of rock. Struck on eye hall by a piece of coal. Outside. Log fractured by a fall of rock. Squeezed between car and rib by car. Squeezed between car and rib by car. Squeezed between war and rib by car. Squeezed between war and rib by car. Squeezed between war and rib by car. Squeezed between by a fall of rock. Squeezed between by a fall of rock. Squeezed about the hips between car and rib. Log bruised by car running against ft. Squeezed about the hips between car and rib. Log rut and toes crushed by a gear wheel. Shander huised by well of rock. Log bruised by a fall of rock. Shander huised by being struck by car. Log fractured by a fall of rock. Log fractured by a fall of rock. Hand smashed by fall of rock. Hand smashed by the log of the car. Took fractured by a fall of rock. Hand smashed by the car. Took fractured by a fall of rock. Hand smashed by the car. Took fractured by a fall of rock. Hand cut off between gear wheel and cons. Con fraction of a carridge which his rockles and scraper. I and amputated, was trying to push in a hole with his rockles and scraper. I and a more about the way the rockles and scraper. |
|---------------------------------------|---|
| County | Luzerne, |
| Name of Mine | Maxwell, Franklin, Porrance So. Wilkes-Barre, So. Wilkes-Barre, So. Wilkes-Barre, Stanton, Stanton, Red Ash No. 2. Warrior Run, Auchineloss, Colliery No, Warwell, Warwell, Warwell, Warwell, Warwell, Stanton, |
| Married or single | ස් ශ්ස්ග්ශ්ස් ශ් සි සිග් ශ් ස්ග්ශ්ස්ත් ස් |
| 93V | F 86878 # # 10 818 & 8178 # 6889 84 8 |
| nolisqueeO | Miner, Miner, Driver, Driver, Miner, Miner, Laborer, Platform boss, Laborer, Runner, Laborer, Runner, Salate picker, Slate picker, Laborer, Runner, Miner, Miner, Miner, Miner, |
| ValienoiteV | Polish, Lithuanian, German, German, Lithuanian, Lithuanian, Polish, Polish, Polish, American, Polish, Polish, Welsh, Welsh, Welsh, Welsh, Welsh, Lithuanian, Lithuanian, Lithuanian |
| Name of Person | Frank Petulis. Thomas Leskoiskey, Frank Baker, Anthony Revishinsky, Richard Kromis, Elick Miconis. Mike Tonyngham, Anthony Rosc Ski Caradoc Jones, John Norceski, Michael Mazu, Michael Wiff. Evan Williams, John R. Williams, Feter Rice. John R. Williams, Feter Rice. John R. Williams, Feter Rice. John R. Williams, Feter Rice. John R. Williams, Feter Rice. John Richards, William Bolonege, |
| Date of accident | |

| No. 22. | SEVENTH AN | THRACTIE DIS | INICI | 221 |
|---|--|--|--|---|
| Burned on face and hands by an explosion of gas. Collar bone broken by falling from car against prop. Lagarist tractured by a piece of coal from blast. While using a pick, a small piece of coal flew, and struck him on the eye, bruis- | mg tt. mg tt. mg tt. preaking the small bone in his leg. Outside. Leg fractured and two toes cut off; caught between car and door. rollar bone broken; caught between car and railing at head of breaker. Outside Arm fractured by a small piece of rock falling upon it. Fingers bruised; caught when hooking stretcher to car. | Finger cut off while helping to turn steam shovel. Outside. Let tractured and back bruised by runaway cars. Badly squeezed and bruised by falling Ford hally bruised by fall of rock. Ford hally bruised by fall of rock. Eye cut, causing loss of sight of eye by a small piece of coal busting out from the face of his chumber. Two fingers smashed by car running over | them. Outstoe. Severely bruised by failing down manway. Kivked in the aldomen by a mule. Leg broken by a loose piece of rook rolling against it while loading a car. Severely squeezed between cars and a prop. Burned on hands and face by powder. Thumb cut off by a spindle. Outside. Badly bruised by being drawn under sprocket wheel by scraper line. Outside. Bruised about hims by being caught. | |
| Luzerne, | | Luzerne, | , | / |
| Stanton, | Stanton, Hollenback, Hollenback, | Jersey Washery, Auchincloss, Alden, So. Wilkes-Barre, So. Wilkes-Barre, | So. Wilkes-Barre So. Wilkes-Barre, Dorrance, Dorrance, Stanton, Sto. Wilkes-Barre Collicry, No. 6 | Maxwell, Sugar Notch, Colliery No. 7, |
| K K KONNEKK | vi vi X vi vi | w KK w w w | த்தை தித்தை தித்தை தித்த | i wiwi ⊠ v. |
| 80 46 88 82 22 44 38 39 39 39 39 39 39 39 39 39 39 39 39 39 | 27 27 27 27 | 20 22 118 133 133 138 | 21 24 38 38 38 38 38 38 38 38 38 38 38 38 38 | 11 27 23 11 |
| Fire boss, | Brakeman, Patcher, Laborer, Laborer, Driver, | Brakeman, Timberman, Runner, Miner, Miner, Car oller, | Laborer, Driver, Laborer, Co. miner, Miner, Slate picker, Driver | |
| Irish Welsh Welsh Werkan American American Anterican Lithuanian Polish | Polish, | Slavonian, Vmerican, Welsh, German, Lithuanian, American, | | Vinerican, Polish, American, Polish, |
| John Bunt, John S. Jones, Benjamin J. Thomas, William Morgan, Walter Roberts, John Gezalski, John Tokarahak, George Bowman, | Peter Pruse, | John Hudock, Edward Hughes, Thomas Arnott, John Sullivan, Martin Smith, | John Sets, Trice, Moses Keen, Michael Green, George Henry, William Van Why, Anthony Beldovage, | Morris Gallagher, John Smith, Charles teele, John Voshefski, Daniel Doryan, |
| A888881- 5 2 | 11 11 91 95 | S - 0 000 4 | विद्या विश्वति । | 51 61 61 63 63 |
| Jan. Feb. | - | March | | April |

TABLE 5.—Continued

| Nature and Cause of Accident in Brief | Bruised and shoulder cut by small fall of | Fock. Squeezed about the breast and hips by car remains over a block and catching | him against a prop. Injured about face and hands by prema- | Injured about face and hands by prema- | Jaw bone fractured; mule knocked him | Collection of many squeezed between | Struck on back by a piece of top bone. Leg fractured: he stepped between chiline and a car while getting out of the way of a car which had jumped the track. | Outside. Leg broken by a large piece of loose coal | Stepped upon a 20-penny nail which went | Thumb almost cut of while using an axe. While riding on top of some props his leg was caught between the roof and | the car, breaking the small bone. While colling some machinery his clothing got caught and he was thrown to the floor. breeking the small bone in his | leg. Outside. Bruised about back and hips by a piece | Bruised on back by premature blast. |
|---------------------------------------|---|---|--|--|--------------------------------------|-------------------------------------|---|---|---|---|---|--|-------------------------------------|
| County | | | | | | | | Luzerne, | | | | | |
| Name of Mine | Truesdale, | Colliery No. 5, | Colliery No. 5, | Colliery No. 5 | Red Ash No. 2, | Maxwell, | Maxwell, ('olliery No. 6, | Colliery No. 6 | Colliery No. 6, | Colliery No. 5, | Jersey Washery | Auchineloss, | Bliss, |
| Married or single | vi | M | × | M | vi. | υż | v. v. | M. | M. | ¥ vi | × | vi | ZZ. |
| Age | 81 | 28 | 49 | 60 | 18 | . 28 | 38 | 20 | 37 | . 16 | . 46 | | 34 |
| noiJaquesO | Laborer, | Latforer, | Miner, | Laborer, | Driver, | Driver, | Miner,Brakeman, | Miner, | Carpenter, | Miner, Coupler, | Machinist, | Miner, | Miner, Laborer, |
| Vationality | Welsh, | Polish | Polish, | Polish, | American, | American, | Polish, | Polish, | Austrian | Welsh | American, | Polish, | Polish, |
| Name of Person | David J. Owens, | Peter Kelogy, | Mike Vetreski, | John Meyers, | John Daley, | Anthony Deran, | Joseph Shusta | Stanislaus Lipski, | Joseph B. yek, | Pavid Lloyd, | James Swank, | George Lipinski, | Thomas Weitzouak, Jacob Jabolski, |
| Inableog to state | April 3 | | V. | 31 | 10 | 30 | 票益 | ļ- | V. | 7 6. 7 6. | 13 | 61 | \$161 |

| Some cars jumped the track and struck a spring latch, causing it to swing | around and strike him, fracturing us ankle. While tamping a blast, the blast exploded | Arm fractured while helping to load a tool box into a car; caused by team | starting up before time. Burned on back, face and hands by gas. While standing a prop he slipped and errained his back. | Burned on face, hands and body by pow- | der. Squeezed about chest by falling in front of moving car. | Caught between cars while uncoupling them: dislocated his hip. Outside. | Leg broken; tried to jump on moving car | Back bruised by a fall of rock. Toe crushed by getting it in the way of a crank wheel that was being dropped | into position. Outside, Leg broken by a fall of top slate. Leg cut; car jumped track and struck | Burned about face, hands and back by | gas, Arm broken; while on his way to the foot of the shaft he needlessly got in | between cars. ('ut and bruised by premature blast. Bruised on hip, stomach, back and back of head by nigne wheel brake. | Cut over left eye and head bruised by | Two ribs fractured by piece of slate fall- ing on him. | Burned on hands and face by gas. Burned on hands and face by gas. Burned on hands and face by gas. Thunb fractured between bumpers of cars while revine to comple them. | Hip and leg bruised by a piece of bony | Finger amputated; struck by a small piece of coal from roof. | Fore finger blown off and top of thumb, smashed by the explosion of a cap, which he was trying to open with a | file. Cut his right arm by a piece of east from a blast. |
|--|--|---|--|--|--|---|---|---|---|--------------------------------------|---|---|---------------------------------------|---|---|--|--|---|---|
| | | | | | | | | | | | Luzerre, | | | | | | | | |
| Conyngham, | Dorrance, | So. Wilkes-Barre,. | Maxwell, | Colliery No. 7, | Colliery No. 5, | Sugar Notch, | Colliery No. 7, | Bliss, Truesdale, | Hollenback, | Stanton, | Colliery No. 5, | Colliery No. 5, | Colliery No. 5, | Maxwell, | Maxwell, Maxwell, Maxwell, So. Wilkes-Barre, | Colliery No. 5 | So. Wilkes-Barre | Colliery No. 7 | M Colliery No. 5, |
| υż | M. | M | K.S. | M | υi | υż | ń | ∑ où | ம் ம் | M | M. | w.K | σά | M | zanaz Z | M | M | M. | |
| 65 | 36 | 33 | 45 | 35 | 20 | 33 | 18 | 33 | 티워 | 35 | 60 | 18 22 | 17 | 30 | 1213888 | 83 | 52 | . 33 | |
| Shaft footman,. | Miner, | Driver, | Miner, | Laborer, | Runner, | Brakeman, | Footman, | Miner, | Laborer, | Miner, | Miner, | Miner, | Driver, | Miner, | Miner, Laborer, Laborer, | Miner, | Miner, | Miner, | Miner, 37 |
| American, | Polish, | American, | Lithuanian, | Polish, | Polish, | German, | American, | German, | Lithuanian Welsh, | Austrian, | Polish, | Polish | Slavonian | Polish | Welsh, Polish, Polish, | Polish, | Irish | Polish, | Polish, |
| 25 Joseph Bennett, | Anthony Lubinski, | George Collett, | George Brooker, | Mike Sock, | Lewis Kriefski, | Peter Wilworthy, | Frank Broshoski, | Joe Knappish, | Anthony Grobleski, William Channing, | Mike Peacole, | | Mike Kulocofski, Fred Schletter. | Joseph Fisher, | Anthony Folandis, | David Jones. Martin Beliski, Joseph Savage. William J. Will:ams | Waddle Shelowofski, | Thomas Lyons, | Marion Pavilitz, | 6 Martin Bednarik, |
| | 58 | 8 | 22 | 280 | 1 | 4 | 1.9 | 9 0 95 | 123 | 17 | 139 | 28 | 21 | 23 | 8888 | 61 | 83 | ift | 9 |
| April | | | | | May | | | | | | | | | | | | | June | |

TABLE 5.—Continued

| Nature and Cause of Accident in Brief | Slightly hurt on legs by flying coal from | a blast. Hadad bruised by falling plank. Outside. There ribs fractured and hip badly cut by | falling down breast. Leg broken; when car bumped head block the bind end immed the track and | s of left by over them w | trying to block the car. Right ankle dislocated; struck by an | empty car. Hip bruised by piece of coal falling on | him. Colland tractured by a fall of coal. Burned on hands, face and neck by gas Leg fractured by a piece of top bone fall- | ing upon it. Thigh fractured between car and door thigh reacting frequencies of the | car. Burned about face, hands and body by | gas. Head and face cut and body bruised by | falling down manway. Four toes smashed and head cut by car | jumping the track. Thumb fractured by piece of coal, which | hurst from the face of the gangway. Two fingers crushed by a car running over | them. Outside. (ut on side and arms by premature blast. While crossing a foot-bridge with some ice in his arms the bridge broke and briefl to the ground spratning his ankle and running a nail through his upper law. Outside. |
|---------------------------------------|---|---|---|--------------------------|---|--|--|---|--|---|--|---|--|--|
| County | | | - | | | | | Luzerne, | | | | | | |
| Name of Mine | Colliery No. 5, | Colliery No. 6, | Colliery No. 6, | Auchineloss, | Maxwell | Auchincloss, | Bliss, Sugar Notch, Maxwell, | Auchineloss, | Auchincloss, | Bliss, | Bliss, | So. Wilkes-Barre, | Colliery No. 7, | Maxwell,Red Ash No. 2, |
| Married or single | vi | zi⊠ | υż | νi | vi | M. | NEK | M. | M | M. | υi | M | vi | ž vi |
| 987. | 44 | 14 | 17 | 22 | 16 | 38 | 54.452 | 24 | 6.1 | 40 | . 20 | 40 | 18 | . : |
| noiJsquovO | Miner, | Slate picker, Miner, | Coupler, | Trackman, | Patcher, | Miner, | Miner, Miner, Laborer, | Runner, | Laborer, | Laborer, | Slope footman,. | Laborer, | Footman, | Miner Laborer, |
| yıllarəlisM | Polish, | Polish | Russian, | American, | American, | Polish | Welsh, Polish, American, | Welsh, | German, | Lithuanian, | Welsh, | Lithuanian, | American, | Irish Welsh, |
| Name of Person | Nick Greizko, | John Demeterko, Jr., Frank Kubuofski, | Mike Andrako, | John Hughes, | John Shortz, | John Konyack, | Joshua T. Jones, Alexander Borinski, Ernest Dunlap, | Albert Howells, | Alex Miller, | John Simefski, | Enoch Williams, | George Snipas, | Barney Visnefski, | Michael Gorham, Thomas Hughes, |
| tnebioor to otacl | June 6 | 91- | 0. | 13 | 15 | TE . | 21 21 21 21 21 21 21 21 21 21 21 21 21 2 | 22 | 22 | 661 | 23 | ক | 56 | 57 88 |

| Brok and hips bruised by fall of r sk. Bruised on left side by fall of top rock. Head cut, two ribs fractured and collar home broken by reconstruct blast. | Leg broken by plast. He returned to | Face place before it capped of coal | A piece of the park from the rib and bonised his back and hims. | Back and leg cut and bruised by a piece | Log broken by piece of rock falling on it. Free finger of right hand cut of by a bisson of one falling on it from a cut. | Right leg and back bruised by a full of | There rules broken by a piece of rock falling on him. | Bruised on back and shoulder by a piece | While breaking coal, a plece struck him in the right eve, causing asset the even | Pr p rolled upon him, bruising blin severely. Outside | Lyg broken by a fall of rock. Sull frequency by fall while working in bound by | Luzerne, Thumb smashed while coupling cars | Arm broken; struck by cars. Foot caught between bumpers of cars, constone rotation in the cars. | Leg bruised by a piece of rock falling | Foot bruised by car. Hand bruised by fall of top coal. Back injured by a fall of coal. Supposing his blast had missed free, by returned to the face and the blast ex- | ploded, cutting and bruising his head and face. While taking timber from a pile, a piece relation the ton and struck his leg. headking it. Oniside | Virin broker; fell from wagon. Outsile. Reuisel by fall, Outside Badly bruised be fall of bony oral Foot out by piece of rook falling upon it. Kryked on the head and stomach be a | Arm broken and face bruised; fell under | Slightly injured by a fall of rock, |
|--|-------------------------------------|-------------------------------------|---|---|--|---|---|---|--|---|---|--|--|--|---|---|--|---|-------------------------------------|
| | | | | | | | | | | | | Luze | | | | | | | |
| Colliery No. 5, Colliery No. 7, Dorrance, | Colliery No. 7, | Alden, | Bliss, | Alden, | Colliery No. 6, Red Ash No. 1, | Maxwell, | Stanton, | Colliery No. 5, | Red Ash No. 2 | Maxwell, | Dorrance, | Sugar Notch, | Colliery No. 6, | Dorrance, | Colliery No. 5 Conyngham, Conyngham, So, Wilkes-Barre, | Hadleigh, | Hadleigh, Red Ash No. 1 Trivesdale, Colliery No. 6 Auchincloss, | Colliery No. 5, | Hollenback, |
| ZZZ | vá | υi | M | υż | MM | M | υi | M | rj. | M. | Z.v. | ŭ. | wi wi | M | NZZW. | M. | MENME | υż | vć |
| 6146 | ÷1 | 10 | 잌 | 9. | 30. | 67 | 50 | 36 | 96 | 5.4 | 31 31 | 1.7 | 17 | 37 | 16 46 36 30 | 55 | 3888 | 18 | . 20 |
| Laborer, Miner, | Miner, | Laborer, | Laburer, | Laborer, | Miner,Rock unloader,. | Laborer, | Laborer, | Miner, | Laborer, | Timber cutter | Timberman, | Car oiler, | Runner, | Laborer, | Door boy, Timberman Miner, | Blacksmith | Teamster, Laborer, Slope runner Miner, Blacksmith | Driver, 18 | Laborer, |
| English, German, Polish, | Polish | Polish | Polish, | Polish, | Polish | Germata | Russian | Polish | Slavonian, | Slavonian, | Welsh, | Swedish | Polish, | Welsh, | American. Swedish. English. | Polish, | Irish | American | Slavonian |
| John Swales, Gust Gral-fski, Charles Bernaski, | John Vishnefski, | Eddie Gardusk.e, | Adam Laman, | Voychack Gr.,ba, | Michael Sakuluski, | Jacob Branno, | William Hotko, | John Stachinski, | John Bedock, | Andrew Drank, | David Williams, | Emil Munson, | Bolish Meshinski, Henry Davies, | Robert Jones, | William Steckroat, Lewis Johnston, John Warren, Albert Sabenski, | Andrew Peslosky, | Patrick Caffrey, Joseph Kobosh, Thomas Walters, Alex Yarashefski, William Smith, | Fred Schletter, | Thomas Hazlinski |
| 8 - 01 | φ | 10 | Ξ | 21 | 130 | 2 | ÷, | 07 | 81 | 63 | \$161 | ši. | 42 | ଚୀ | c1 -r -r -cc | 00 | 111 12 139 121 12 | 21 | 2.3 |
| June | | | | | | | | | | | | | | Aug. | | | | | |

TABLE 5.-Continued

| 11 == | | | | | | | | | | | | | | | | |
|---------------------------------------|---------------------------------------|---------------------|--------------------|------------------|---|--|---|---|------------------------------------|-----------------|--|----------------------|---------------|-----------------|--|--|
| Nature and Cause of Accident in Brief | Severely cut and bruised by premature | blast. | oce of ro | falling upon it. | and rib. Foot squeezed between car and vertical | slope roller. Eye and face badly injured by the ex- | plosion of a hole loaded with giant powder which had missed fire and which | he was trying to drill out. Head squeezed between car and prop | on a trip, red by a fall of rec | plosion of gas. | dark. Leg fractured: tried to jump on a car and | fell in front of it. | Side. | | down may way, Wrist hone fractured by lover stribbing it | Outside. Head cut by being thrown from car against rib. |
| County | | | | | | | | | Luzerne, | | The state of the s | | - | | | |
| Name of Mine | Auchincloss, | Bliss, | So. Wilkes-Barre,. | Dorrance, | Sugar Notch, | Franklin, | | Red Ash No. 1, | So. Wilkes-Barre | Hillman vein, | Hollenback, | Hadleigh, | | Maxwell, | | Bliss, |
| Married or single | υż | M | M. | υż | M | υi | | ×. | N. Z | M | v2 | Ω. | υż | vi. | v. | vi. |
| 93.k. | 21 | 26 | 35 | 17 | 53 | 22 | | 83 | 25 | 36 | 17 | 18 | 29 | 27 | 21 | 19 |
| noilsequooO | Miner, | Laborer, | Laborer, | Driver, | Miner, | Miner, | | Tracklayer, | Laborer, | Engineer, | Driver, | Oiler, | Miner, | Laburer, | Laborer, | Slope headman, |
| Vationality | Polish, | Lithuanian, | American, | Polish, | Polish, | Italian, | | Welsh, | Polish | American, | American | Irish | Polish | Polish, | American, | German, |
| Name of Person | Adam Zokuski, | Stanley Pancovitch, | George Kenewer, | Charles Mitchie | Stanley Kaski, | William Gallegher, | | Wm. B. Williams, | Anthony Boer, Joseph Koons, | George Transue, | Thomas Conway | Francis Reilley, | James Malloy, | Stanley Malloy, | Walter Leazer, | Osear Boume, |
| | ैं | 56 | 26 | 83 | 53 | ह्य | | 30 | φt- | 11 | 14 | 15 | 18 | 18 | 18 | 19 |
| Date of accident | Aug. | | | | | | | | Sept. | | | | | | | |

| Hand smashed and thumb cut off by car running over it. He was pulling | 200 | Leg broken; struck by a piece of coal | Iron blast. Wrist dislocated and foot smashed by fall of coal and bone which he neglect- | ed to take down after being told to do so by the fire boss. Several ribs fractured by a fall of rock. Hip squeezed between car and prop. Two fingers, cut off between car bumper | and proce or coal. Squeezed between car and prop. Back nilured by fall of rock. Back injured by a fall of rock. Burned and bruised by an explosion of | powder. Two ribs fractured; fell between bumpers | Arm broken by prop falling against it. While trying to force a cartridge into a | the drill through his leg, fracturing his leg and hip and burning his face and | names. Burned on face and hands, and face and arms cut by the explosion. | Leg broken; struck by piece of coal from | While loading a car at the face of the slope, the block slipped from under the wheel, allowing the car to run over the | against the foad and squeezing nime against the face of the slope. Squeezed between engine and car, caused by which on our broading ontitied | While barring down a piece of coal, part of it struck him on the ankle, fractur- | These five men, with others, were being lowered on the cage in No. 3 shaft, when the engineer lost control of his engine, allowing the cage to strike on the bottom very hard, jarring and bruisting them. | Head squeezed between cars while trying | Leg broken by fall of rock. Skull fractured by a piece of coal striking him. |
|---|--------------------|---------------------------------------|--|--|--|---|---|--|---|--|--|--|--|--|---|--|
| | | | | | | Luzerne, | | | | | | | | Luzerne, | | Luzerne, |
| Sugar Noteh, | So. Wilkes-Barre,. | Hollenback, | Dorrance, | Maxwell, Stanton, Red Ash No. 2, | Red Ash No. 2, Dorrance, Conyngham, Colliery No. 6, | Maxwell, | Red Ash, | | Auchincloss, | Colliery No. 6, | Maxwell, | Colliery No. 5, | Stanton, | So. Wilkes-Barre,. | Dorrance, | Conyngham, |
| υi | M. | M. | vi | Z vivi | KKKWK | M. | M. | | M. | M. | N. | M. | M. | NEWER WENE | υż | Z w |
| . 17 | | . 55 | 63 | 52 25 | 23.4.7.2.3.3.2.3.3.2.3.3.2.3.3.3.3.3.3.3.3.3 | . 59 | 30 43 | | 28 | 39 | 45 | : : | 36 | 888241 | 18 | 26 |
| Door boy, | Laborer, | Miner, | Miner, | Miner, Driver, Laborer, | Laborer, Driver, Timberman, Miner, | Company man,. | Miner, | | Laborer, | Laborer, | Miner, | Supply clerk, | Miner, | Miner, Miner, Rock miner, Miner, Patcher, | Runner, | Timberman. Miner, |
| Lithuanian, | American, | Slavonian, | Polish, | Welsh, American, | Russian, Polish, Irish, Polish, Slavonian, | Irish, | Polish, | | Polish, | Polish, | Welsh, | English, | Welsh, | Welsh, Polish, Welsh, Polish, American. | Welsh | American |
| 20 Joseph Cominski, | Thomas C. Morgans, | John Burshaw, | Wm. Koslavage, | Robert Jones, George Slacker, Stanley Micosh, | George McCallen, Mike Smith, Thomas Durkin, Michael Andrekitus, Steve Yatzko, | Anthony Gorham, | Anthony Tomick, John Torgieski, | | Albert Wincavage, | Jacob Mikrut, | Thomas D. Williams, | Charles Duncan, | Morris J. Hughes, | Richard P. Evans, John Sopoy, John D. Jones, George Savage, Ivwin Kronus, | Rollo Oriel, | George Cobboy, Patrick Padalonis, |
| | 26 | 58 | 28 | 7. 10 00 00 | 22,23 | v. 10 | HH | | 11 | 11 | H | 13 | 16 | 71 71 71 | 18 | នន |
| Sept. | | | | Oct. | | Nov. | | | | | | | | | | - |

TABLE 5.-Continued

| Nature and Cause of Accident in Brief | Face burned by gas. Jaw fractured; kicked by a mule. Leg broken; coal which he was barring down fell on him. | Badly bruised by fall of rock. Slightly burned on hands and face by gas. Squeezed between rib and car, by car | Slightly burned on face and breast by | Squeezed about ahdomen; caught between plunger and blow-off pipe of pump | while in the dark. Three ribs fractured by being struck by | Hands and face burned by powder. Hands and face burned by gas. Right leg bruised by a piece of coal fall- | ing upon it. Right leg bruised by a piece of coal fall- | Bruised on both legs and shoulder by a | present twen training and down pitch and striking him. Both legs bruised by being struck by a | Hands and face burned by gas. He lit | Squeezed between car and rib by falling | Arm broken and face and body bruised | Leg and head burt by falling off roof of boller house. Outside. |
|---------------------------------------|--|---|---------------------------------------|--|---|---|---|--|--|--------------------------------------|---|--------------------------------------|---|
| County | | | | | | Luzerne, | | | | | | | |
| Name of Mine | Warrior Run, Colliery No. 7, Colliery No. 6, | Dorrance, | So. Wilkes-Barre,. | Colliery No. 5, | Maxwell | Maxwell, Stanton, Hollenback, | Hollenback, | Colliery No. 7, | Maxwell, | Maxwell, | Colliery No. 6, | Dorrance, | Colliery No. 6, |
| Married or single | ziwizi | ZZvi | υż | M. | M | ZZ. | M | υi | X. | M. | M | υż | X. |
| Age . | 3228 | 888 | . 25 | . 29 | | 38 38 | # . | . 27 | . 27 | 32 | . 31 | . 19 | . 30 |
| - nothadussO | Miner, Driver, Miner, | Miner, Miner, Laborer, | Laborer, | Pumpman, | Miner, | Miner. Rock man, | Miner, | Miner, | Laborer, | Miner, | Coupler, | Driver, | Carpenter, |
| Villanoling | | American Welsh, Russian, | Lithuanian, | English, | Welsh, | Irish, Welsh, Welsh, | Welsh, | Polish, | Slavonian, | Polish, | Polish, | American, | Polish, |
| Name of Person | ('harles Urban, John Giafski, Peter Muzukavage | Andrew Coll, Robert Owens, Adam Ochoposki, | John Slotchliomis, | Henry Mayor, | John Harrls | Edward Carey, Arthur Poole, John James, | Thomas Beynon, | John Suddock, | William Magda, | Peter Bobb, | George Lash, | John Clune, | John Markevitz, |
| in ablees to start | Nov. 22 SS Dec. 4 | int⇒e. | 6 | 15 | 15 | X 51 83 | êì | en en | ξî | %1 ?1 | 6,1 | 30 | 90 |

FATAL ACCIDENTS

By Falls of Coal, Slate and Roof

Thomas Reese, miner, at the Hollenback colliery, had fired a blast and returned to the face of his chamber, and started to work some of the coal loose, when a piece of slate fell on him. One of his legs was broken and he received internal injuries. The accident occurred January 10, and he died at the City Hospital February 7.

Anthony Kenyoski, miner, at the Auchineloss, was instantly killed January 18, by a piece of top coal falling on him. The chamber was well timbered, but the piece that fell was almost surrounded by a

blind slip.

Thomas Watson, miner, at the Stanton, was instantly killed by a large fall of top rock in the face of his Chamber, January 21. He had evidently been deceived by the top rock, as there was a slip in it on one side.

Charles Doboditus, laborer, at the South Wilkes-Barre, was injured March 8 by a fall of bone and rock, and died next day. He was laboring for a miner named George Yakites in a chamber in the Kidney vein, where there is a piece of bony coal about 8 inches thick over the coal. When this is kept up the roof can be kept good by propping, but when it starts to break down the chamber and gangway have to be collared close to the face, and then it is very hard to keep the roof up.

The miner was starting a new chamber off No. 6 slope and it was in about 20 feet and was about 12 feet wide. He said that he noticed that the bony was breaking and that he tried to pull it down, but was unable to do so. He then went to work in the face and allowed his two laborers to start to load a car, and while they were loading the car, some of the bony and rock fell and caught Doboditus.

Mike Rush, miner, at the Stanton, was working in the face of his chamber when he was instantly killed by a fall of top rock, March 11. He had been warned by the assistant forman that the rock was bad and should be taken down, but he delayed, and when he started a hole that would blow it down, it fell on him.

William P. Price, miner at the Alden, was instantly killed, June 1, in the face of his chamber by a large piece of coal falling on him.

The fall was due to a slip.

Matt Sopovinski, 'aborer, at the Stanton, was instantly killed June 7. He was preparing to load a car when a large piece of rock fell on him.

Michael Buck, miner, Red Ash No. 2, was instantly killed June 8. He was robbing pillars in the Red Ash vein. He had fired a blast and went to bar down some of the top coal, when it fell on him.

Anthony Seckowski, laborer, Colliery No. 5, was instantly killed August 4. He was about to drill a hole in the center of the chamber. He had fastened the machine bar and was going to start the hole when he noticed a piece of top coal, which he evidently thought was in his way. This top coal extended about 18 inches from the face. He took a drill and pulled it down and when it fell a large piece of rock that was above the coal fell on him.

John Davis, timberman, Conyngham, was instantly killed by a

fall of top coal, August 4. Davis and Lewis Johnston, another company timberman, were sent to do some timbering in the first chamber, and while they were standing a prop the top coal fell upon them, killing Davis and injuring Johnston.

John Hunt, company miner, Stanton, was instantly killed August 12. He was timbering a double branch in the west five foot vein, and while he was preparing a place for a leg, a piece of rock fell on

him.

John Lovett, miner, Matthew Okales, miner, and Anthony Zakaroskus, laborer, were instantly killed and Thomas Walters, slope runner was badly injured by a fall of bony coal in No. 2 West Mills vein slope of the Truesdale. The accident happened between 12 and 1 o'clock in the morning of August 12. Lovett and his laborer Zakaroskus had finished their shift, but stayed to help lay some track. When Okales and his laborer, Joseph Foley came in to change them, they all went to work together to put down some road. Joseph Foley and Charles Polonus went back to the slope for some ties, and in the meanwhile, Walters, the slope-runner came in to see if they needed a car. About the time he reached them, the bony coal came down with a crash catching all four under it. The miners should have taken this bony coal down, stood props under it, and not have risked it as it was.

John Lincho, miner, at the Hollenback, was instantly killed and Thomas Hazlinski, his laborer, was slightly injured August 23, by a fall of rock. Lincho was sitting about 12 feet from the face and the laborer was loading a car. They heard a crack in the roof and it instantly fell. This accident would have been avoided if the miner had stood props as he had been ordered by the assistant mine foreman.

George Granater, miner, Colliery No. 7, was standing a prop in the face of his chamber when he was crushed to death by a fall of rock, August 23.

Metro Jula, miner, Alden, was fatally injured August 24. He was working a breast in the Mill's vein, Mills slope. He had finished all but loading one car. It seems that he had not enough coal to fill the car and he started to dig some from the pillar, and while he was doing so, a piece of top coal and clod fell upon him. He died same day.

Michael Pyrah, laborer, Maxwell, was instantly killed August 29. He was laboring for Robert Lloyd in first east gangway, Ross vein. They fired a shot in the face and then went back to the box to eat supper. After supper, they commenced work again, when a large piece of rock fell on Michael. This rock had two blind slips and

was very deceptive.

Alex Komcrofski, laborer, Bliss, was instantly killed August 31. He worked for Robert Clarke. Clarke left Komcrofski and William Clarke, another laborer, to load a car of coal and gave them instructions to go home when the car was loaded. Instead of doing so, Komcrofski started to pick coal under a piece of top coal and the top coal fell upon him.

John Barrett, miner, Red Ash No. 1, was fatally injured September 28. He returned to the face of his chamber before the smoke from the blast had cleared away. He failed to notice a large piece of rock that was still hanging above the 6 foot vein, and as soon as he

stepped under it, it fell on him breaking several ribs and fracturing his spine. He died October 6.

Griffith Davis, miner, Red Ash No. 2, was fatally injured October 4. He was robbing pillars in the fourth lift, and was preparing to drill a hole when a large piece of coal fell upon him. He died November 7.

Ruben Everland, laborer, Colliery No. 7, was instantly killed October 24. He was laboring for William J. Davis, who was reopening an old lift on No. 9 slope, Forge seam. He was loading a car in company with two other workmen, when a piece of rock fell, striking him on the back of the neck.

Victor Tom, laborer, South Wilkes-Barre, was instantly killed December 5. He was loading a car when a piece of rock fell from the rib. It knocked down a set of timber that was at the face, and it fell on him.

John Dyvitch, laborer, Stanton, was fatally injured December 9. He was throwing coal back alongside the track, when a piece of rock fell upon him, and broke several of his ribs and also his leg. He died December 13.

Martin Croski, laborer, South Wilkes-Barre, was instantly killed December 16. He was loading a car at the face of the chamber when a piece of top coal and bone suddenly fell upon him.

Andrew Yorokofki, laborer, Dorrance, was almost instantly killed December 16. He was working in a heading in Cooper vein, No. 16 slope. The miner had prepared a blast in the face of the heading and Yorokofki was retreating to a place of safety at the corner of the heading, when a piece of bone and rock fell on him.

By Cars (Inside)

William Dew, driver, Bliss, was instantly killed, February 25, while taking a trip of two loaded cars out the gangway from the head of No. 2 slope, Ross vein, in Espy tunnel. He tried to jump on the head end of a car, made a misstep and fell under it and was so badly injured that he died without speaking.

Patrick Walsh, driver, South Wilkes-Barre, was fatally injured May 15 by being squeezed between cars at the head of No. 3 slope. Hillman vein. He was pulling an empty trip from the head of No. 3 slope to No. 5 slope, and while getting on the head end of the trip where the empty cars pass the loaded cars, he was caught between the two trips. He died May 30.

John Urbin, laborer, Dorrance, was instantly killed by trip of cars, May 22. He started down the West plane without waiting for the miner to hoist the trip of cars. When the trip was hoisted he was found on the plane in a dying condition. He had been struck by the trip of cars.

John Lech, patcher, was instantly killed July 28. He stood along the road where he had no occasion to stand and as a car was passing it jumped the track and struck him.

Joseph Kennite, driver, Colliery No. 7, was almost instantly killed November 18. He was driving a team of mules along No. 22 tunnel gangway, riding on the head end of a trip of 5 loaded cars that he was bringing out to the foot of No. 3 shaft. In some way he fell

under the trip of cars and was found with his skull fractured and

both legs broken.

Joe Verecotch, laborer, Alden, was killed December 1. He was employed by Wm. Gould, contractor, who was sinking a slope in the East vein in No. 2 shaft. His miner and he were working in the face of the slope. Above them about 90 feet up along the slope a car was standing that had been loaded by the night shift from the airway. The footman signaled to the engineer to slack off so that he could couple the car on and hoist it to the top of the slope. When the engineer slacked off he bumped the car with such force, that it broke the block that was holding it. The car ran to the bottom and struck the laborer. This accident should have never happened. The night shift men had been instructed to place a drag on their cars in order to prevent them from running down the slope, but this they neglected to do. The men working in the slope had also been instructed to leave the face of the slope and go to a place where there would be no danger whenever there was any hoisting or lowering of cars on the slope. This they neglected to do.

Patrick Murphy, footman, Franklin, was instantly killed December 29 while working at the foot of Long slope. Two cars jumped the track and one of them became uncoupled and ran away. Murphy was struck by flying coal or wood and instantly killed. He had a hole in the back of his head and was found 40 feet in No. 1 tunnel.

By Blasts (Inside)

Joe Munick, miner, Alden, was pushing his needle through the powder at the back of the hole when the powder exploded. He was so badly injured (January 24) that he died on February 3.

George Younger, miner, Colliery No. 6, was instantly killed in his chamber by premature blast, January 28. He had prepared a blast.

He lighted the squib, yelled "fire," and began to retreat. Scarcely more than a second had elapsed before the blast exploded. The laborer found Younger lying dead about 10 yards from the face.

Felix Besenski, miner, Franklin (April 20), had charged a hole and lighted the squib, and had retreated about 40 feet from the face when the blast exploded. He was struck on the head by a piece of flying coal, rendering him unconscious for several hours. He was taken to Mercy Hospital, where he died April 25.

Peter Lubinski, laborer, Dorrance, was laboring for Anthony Lubinski on April 26. The miner had drilled a hole in the bottom rock, and put the powder in it and Peter began to tamp it. While he was

tamping it the blast exploded, killing him instantly.

Edward Thomas, miner, South Wilkes-Barre, was fatally injured on August 29. He was driving a heading at the face of No. 12 tunnel. He exploded his blast by an electrical battery. He had prepared a blast and was ready to fire it but he found that some gas had accumulated at the face, and he stayed at the face to remove it. He instructed one of his two laborers to go to the battery so as to be ready to fire when he (Thomas) would give the signal. The laborer says that Thomas gave the signal, and the shot was fired while Thomas was yet near the face. He was fatally injured, dying at his home three hours later.

By Explosions of Gas (Inside)

John Brown, miner, Maxwell, was fatally burned by an explosion of gas December 7 and died at Mercy Hospital, December 18. About 8 A. M. he was shoveling coal from the face to make room for brattice. He was using his safety lamp and he had his naked light a few feet back from the face. By shoveling he must have driven the gas to his naked light. This exploded the gas and he was burned on his hands, face and back.

Suffocated by Gas (Inside)

Adam Markosky, miner, South Wilkes-Barre, was going to do some timbering on June 17, at the face of No. 4 slope, fourth East gangway, Baltimore vein. He wanted to get his drill which was up in chamber No. 40. So he and his laborer went up the chamber close to the face, but they could not get to the drill on account of the gas there. So the laborer stayed there and Markosky went down and up on the other side of the brattice. The laborer heard him fall and called to him, but he received no answer. He then went and notified others, but when David Reese, Thomas Quinn and others arrived, they pulled him down to the cross-cut, and upon examining him they saw that he was dead. He had been suffocated by the gas. He had been warned by L. J. Davies, assistant foreman, not to go up this chamber.

Miscellaneous (Inside)

Anthony Lavitch, miner, Hollenback, was working in a breast (August 12) that had a pitch of about 30 degrees. There was a flat in his place about 12 feet from the face. He was standing here shoveling coal down the breast and while he was doing so, a piece of bone coal about 3 feet by 3 feet by 3 feet rolled out of the face of his breast upon him, crushing his head and killing him instantly.

John Martin, miner, Bliss, worked in a pitching chamber on first East lift, off No. 4 tunnel, Ross vein (October 26). This chamber has an average pitch of 40 degrees. He had ascended his chamber to the face which is a distance of 290 feet. Instead of taking his safety lamp only to examine his place he took his naked light also. The naked light on his cap ignited a small quantity of gas which had accumulated since the fire-boss had made his morning examination. In his fright, caused by igniting the gas, he jumped for the man-way which was on the left side of the chamber, but instead of jumping into the man-way he jumped into the open chamber and fell the entire distance of the chamber. His injuries consisted of slight burns and severe bruises all over his body. He was removed to his home, where he died the same day at 11 P. M.

Anthony Kluchnick, miner, Bliss, was heating a stick of dynamite (November 22) with his naked lamp. While doing so his attention was attracted by some noise, which he evidently thought was a fall of rock. Without a second thought he placed the dynamite in his boot leg. The dynamite had become ignited and now burned. It severely burned his leg from the knee down. He died at the Moses Taylor Hospital, Scranton, on December 9.

By Cars (Outside)

John Tometsco, car loader, Maxwell, had finished loading a large steel railroad car and started to run it down in the yard (March 9) He was standing on the front end by the brake. About 200 feet below the breaker in some way he fell off in front of the ear. The car passed over him crushing his body at the hips and cutting off one arm. He lived about one hour and fifteen minutes after the accident.

Luke Pesovitch, loader, Bliss. Two box cars had been loaded and run down from the breaker on the North track (April 14). The car nearest the breaker was standing over the switch about 9 feet from the frog. The coal inspector was inspecting the first car of coal before it was weighed. An empty steel car ran away from under the breaker on the South track and Luke jumped on the front end of the steel car to stop it. Before he could apply the brake, the cars came together, catching Luke between the brake wheel on the steel car and the end of the box car. On account of the two cars coming together near the frog, the draw-heads were not in line, this allowing the draw head of the steel car to slip under the box car. This allowed the two cars to come close together. The coal inspector called to Luke before he got on the car to let it go, but he did not heed the warning. He died about an hour after the accident happened.

Eddie Ebert, Buckwheat loader, Colliery No. 7. While he was uncoupling the locomotive from a trip of cars while they were in motion (August 7) he lost his balance and fell under the cars. Several cars passed over him, causing fatal injuries. He died at the

Mercy Hospital on October 8,

Stanley Cyvinski, slatepicker, Bliss, had been out on an errand October 7, and was returning to the breaker by way of the dirt road. He jumped on one of the refuse cars to ride in. He was chased off by the driver. He then jumped on the next car and as it entered the breaker Stanley was squeezed between the car and the side of the breaker, breaking his leg just above the knee and inflicting internal injuries. He died October 25.

By Machinery (Outside)

Barney Koschowack, oiler, Colliery No. 7, was instantly killed April 26, by having his clothes caught on a revolving shaft. The victim had evidently climbed over the railing which guarded the shafting and attempted to get down alongside of the revolving shaft.

Smothered to Death (Outside)

Charles Staley and Edward McManaman, outside laborers, Stanton, were picking ice off the fuel tracks underneath the breaker on March 13, when about 40 feet of the screening pockets in the middle of the breaker gave away, and the men were buried under the timber and dirt. They were suffocated before they could be reached.

By Stone Falling Upon Him (Outside)

Peter Creson was stripping the dirt from the top of some coal and he was undermining a large stone. A large piece of the stone fell upon him, instantly killing him, September 27.

CONYNGHAM DISASTER

Shortly after 6 o'clock A. M. April 26, ten men were killed at the Conyngham colliery of the Delaware and Hudson Company, by the breaking of the rope in the shaft in which the men are lowered to and hoisted from their work. Several cage loads of workmen had already descended to their work. These ten men in their turn stepped upon the cage. The cage had just about reached the Hillman landing where most of them intended to get off. The engineer had slackened the speed and was about to stop when the rope parted. The safety catches failed to work and the cage dropped to the bottom of the shaft, a distance of about 400 feet.

The engineer in charge of the engine at the time was William Cunningham, a man of many year's experience as an engineer. He said that all went well until he was about to stop the engine, when he felt a jerk on the engine, and the rope, which is usually drawn taut by the weight of the cage, hung slack. He knew instantly that something was wrong. A few moments later word came up through the speaking tube from the footman that the cage with its load of human freight had struck the bottom with a terrific crash. A rescuing party of officials and workmen labored for several hours before they finally succeeded in extricating all of the bodies from the tangled mass of wreckage.

The question arises, why did the safety catches on the cage fail to work? I must say that I was greatly deceived in them. At the Delaware shaft of the Delaware and Hudson Company, where I was foreman for a number of years, the same kind of safety catches was used upon the cage. I had often seen them tested and they never

failed to work satisfactorily.

These safety catches were what are called the quadrants. They are made of brass, with a row of teeth around the outer rim. They are adjusted by means of rubber springs through which the drawbolt on the cage passes. If the rope breaks or becomes detached from the cage, they are supposed to wedge and grip tight upon the guides in an instant. There are four of these quadrants on each cage, or two to each guide, opposite each other.

Why they did not grip the guides and hold the cage on the morn-

ing in question is in my opinion due to one of two causes:

1st. That the safety catches on that cage were out of order at the time of the accident; or,

2nd. If they were not out of order, they were not safety catches such as the law requires that will be effective under any condition

that may arise in hoisting shafts.

As to the first condition, we have the sworn testimony of John Moore, carpenter, and Thomas Ruddy and Harry Mills, engineers, whose duty it was to examine and keep in good order these safety catches, that they had examined them and that they were in good working condition.

As to the second condition, it was shown by the testimony of Mr. Thomas, who was looking at the cage as it was coming to the Hillman landing, that when the rope broke, the cage disappeared in an instant, showing conclusively that the safety catches failed absolutely to act. The guides at the point where the cage was when

the rope broke were in good condition, but they showed no signs of the safety catches having taken hold of them. This was a surprise to us all.

After the accident a great many opinions were expressed by different persons as to why the catches failed to work. The opinion most expressed was that the piece of rope hanging to the cage had held the catches taut and therefore they could not grip the guides as their inventor intended they should. If this theory be true then it must be acknowledged that the safety catches are not equal to all emergencies that may arise in our shafts.

I had intended, after being notified by the Chief of the Department of Mines, to test all the cages in the shafts in my district, and to test some of them under about the same conditions as prevailed at the Conyngham shaft at the time of this accident, namely, to drop a cage when several hundred feet of rope were attached to it. But when I spoke to some of the superintendents about doing this they were loath to do it. They felt that it would not be right for me as a Mine Inspector to cause them any more trouble or expense than operators were subjected to in other inspection districts. I had to acknowledge that their point was well taken, and as I had no authority to compel them to furnish pieces of rope of different lengths, I was compelled to abandon my idea of making such tests. The problem whether a piece of rope attached to the cage and falling with the cage will hold the safety catches taut and prevent them from taking hold is so far as I know at the present time unsolved.

Since this disaster, I doubt whether superintendents, foremen and intelligent mining men generally believe that if a cage loaded with men were descending a shaft and the rope were to break, or the cage become detached, the cage would stop in its descent.

In my experience in testing safety catches, I have found that if the cage does not stop the very instant it is cut loose it generally goes to the bottom. There seems always to be a reason for this. Sometimes something about the catches breaks, or the catches having small teeth get filled up with wood from the guides, or pieces break out of the guides, and when this happens the cage gets a start and generally lands upon the bottom.

After the above explanation of my experience in testing the safety catches, it will be seen how unlikely it would be for a heavy cage loaded with men going down some of our shafts as fast as they do sometimes, to be caught by the safety catches. In my opinion it seems nearly impossible for the reason that the heavy weight and the momentum of the cage going down would cause something to break or give way.

Even if the catches did hold fast and the cage stop suddenly, the result to the men would be the same as if the cage had struck the bottom hard. The chances are that they would all be injured or possibly killed by being thrown off the cage into the shaft. It is evident that all the dangers to which we are subjected in going up and down our hoisting shafts are not eliminated by the safety catches.

I have no wish to create any unnecessary alarm among mining people. Some of the safety devices now in use are the best that the market affords, but the question arises: Are they given proper attention? Every person whose duty it is to look after them should do so without fear or favor, and according to law. If he does this he should have nothing to fear, but on the contrary he should have the thanks of his employers and of the men who must ride upon the cages.

The two best safety devices are:

1st. To always keep good ropes in shafts where men are hoisted or lowered. 2nd. To employ good and careful engineers, and not allow them to be overworked, men, who when hoisting or lowering men will run their engines as the law requires. If these two safety devices were adopted, there would scarcely be an accident of this kind.

The officials in charge of the mine always sincerely deplore any serious accident. The Mine Inspectors also regret them exceedingly and sympathize with the victims and their friends. But regret and sympathy amount to nothing to the victims, or to widows and orphans. What is needed is more strict oversight. If the provisions of the mine law were carefully followed, as the law intended they should be, there would be fewer accidents.

Take for instance the accident at the Conyngham. plainly that the law had not been fully complied with, for what reason I am unable to explain. There were four men, three engineers and one carpenter, delegated by the foreman to look after the ropes and cages in this shaft. At the inquest, three of these mea swore that they had examined this particular rope on the day before the accident, and that they could not see any broken strands in it. Yet when the rope broke the next day, there were numerous broken strands to be plainly seen on both ends back along from where the rope parted. I do not think that all of these broken strands had been broken between the time of their examination and the accident. It seems to me that these broken strands must have been visible to any one examining the rope for several days before the accident, and if they were, then all of those men whose duty it was to examine the rope and report its condition to the foreman, failed to do their duty, both to themselves and the company employing them, and also to the unfortunate victims and others who were compelled to ride upon this cage.

The only explanation that I can give as to why these men did not see those broken strands was, that they did not examine it as carefully as they should, and the reason they reported it in good condition, was that they took it for granted that as it was used only to lower and hoist men there would be no danger of it breaking. Of course this is only my supposition and I may be wrong.

I was sick at the time of the accident, and told them to notify Mive Inspector P. M. Boyle, who would assume my duties in the case. Mr. Boyle arrived at the colliery a short time after the accident and assisted in getting the bodies out. He notified Coroner Dodson to hold an inquest. There were several sessions before all the testimony was secured.

The verdict was as follows:

Verdict of Coroner's Jury

We, the jury, do say, that from the circumstances connected with this case and the evidence, that Frank Royal came to his death from being hurled down the shaft of the Conyngham mine, in North Wilkes-Barre, of the Delaware and Hudson Coal Company, on April 26, 1905, owing to the breaking of the rope and the dogs not working while the cage was descending. We are unable to determine from the evidence the cause of the breaking of the rope. We further find from the evidence given at the various hearings that the company had incompetent men to inspect this rope. We, the undersigned jurors, recommend that the company adopt some other method than the one now in use for testing the dogs, as the present method has proved inadequate. We further recommend that engineers, where men are to be lowered or hoisted, be required to be on duty but eight hours at one time, and we heartily approve of the method of employing engineers as recommended by Mine Inspector Martin in the Wilkes-Barre Record of February 28, 1905.

D. W. DODSON, Coroner.
JACOB EVANS,
JOHN CRAWFORD,
FRANK CASTERLINE,
THOMAS P. WILLIAMS,
CHARLES CUNNINGHAM,
JAMES HALL,

Jurors.

CONDITION OF COLLIERIES

The condition of the collieries in this district is good in regard to ventilation, except in a few instances.

It seems as if some foremen do not consider that it is necessary that all parts of a mine should be kept in good condition, especially as to ventilation. I have often found fault with the ventilation, but of course the foremen always have some excuse to offer, such as: "We expect to get a certain heading through so that the air will be better;" or, "The doors have been left standing open somewhere, which affects the ventilation badly. They know, however, that they have no one to attend to the doors properly. Numerous other excuses are also offered.

In my opinion it should not be necessary for any foreman to make excuses for the proper ventilation of any part of a mine, as required in Article 12, Rule 3, of the Anthracite mine law.

The mine foreman under this rule has charge of all matters pertaining to ventilation, and the speed of the ventilator is particularly under his charge and direction; and any superintendent who shall cause him to disregard the provision of the law shall be amenable in the same manner as the mine foreman.

IMPROVEMENTS

LEHIGH AND WILKES-BARRE COAL COMPANY

Hollenback No. 2 Colliery

Outside—Brick oil house; brick power house. Inside—No. 18 Tunnel Red Ash to Top Red Ash; No. 19 Tunnel Red Ash to Top Red Ash.

South Wilkes-Barre No. 5 Colliery

Outside—Two pairs 24x48 hoisting engines Nos. 6 and 7 slope; brick oil house.

Inside—No. 13 Tunnel Baltimore to Five Foot; No. 14 Tunnel Baltimore to Five Foot; No. 15 Tunnel Five Foot to Stanton.

Stanton No. 7 Colliery

Inside.—Compound condensing duplex pump and reinforced concrete pump room.

Sugar Notch No. 9 Colliery

Outside.—Supply store; started erection new breaker.

Inside.—No. 19 Tunnel Twin to Twin; No. 15 Tunnel extended Stanton to Hillman.

Maxwell No. 20 Colliery

No. 19 Tunnel Hillman to Kidney; No. 20 Tunnel Red Ash to Twin; Rock plane airway Hillman to Kidney; Bore hole for culm slushing.

LEHIGH VALLEY COAL COMPANY

Dorrance Colliery

Baltimore shaft extended 170 feet and landings are being turned off from which tunnels will be driven to the Red Ash vein.

No. 13 Rock slope has been finished to the Red Ash vein. This to be used for a second outlet,

No. 6 Rock slope has been finished and a tunnel is being driven through Mill Creek Anticlinal to the main South dip.

No. 14 sub-slope in the Cooper and No. 15 sub-slope in the Bennett vein have been extended 800 feet.

Two tunnels are being driven in the Five Foot plane level to the Hillman vein.

No. 13 Tunnel from the Hillman to the Abbott finished.

No. 10 slope in the Bowkley has been finished to the basin. Two tunnels, each 125 feet long, were driven from Bennett to

Cooper vein in bottom lift of extension slope.

No. 1 Tunnel Hillman to Bowkley has been finished to the Abbott vein.

 Λ new concrete wash-house equipped with 100 lockers has been erected.

One thousand five hundred H. P. Stirling water tube boilers has been installed, dispensing with 1,200 H. P. tubular.

The boiler house has been rebuilt with brick and corrugated iron roof.

The outside barn has been rebuilt, also mule hospital and concrete fire hose house.

Franklin Colliery

Three hundred H. P. Stirling water tube boilers are being erected. The water has been pumped out of the fire water submerged district in long slope and the Sump vein No. 7 slope has been extended to the No. 2 old level.

No. 11 Sump vein slope equipped with 12x12 hoisting engine on surface and rope hole.

New stable finished in Sump vein.

Extraordinary repairs and changes made to breaker, circular screens being dispensed with shakers, also additional mechanical pickers.

Thirty-five new steel cars.

New rock slope started and sunk 200 feet during past year from surface. Idea being to connect with inside No. 10 slope, Ross vein.

Silting has been continued and extended in the top split of Rell Ash and Ross vein district.

A new bore hole for silt.

William's crusher and engine installed, taking care of refuse from breaker.

Warrior Run Colliery

New boiler house finished.

One thousand five hundred H. P. return tubular boilers installed, equipped with eight foot fan blast, new feed pump and Cochran water heater. The three old cylinders and return tubular boiler plants dispensed with.

New steam lines have been completed between boiler house and

Buck Mountain and Rope Hole engine houses.

Williams crusher installed and silting extended.

The breaker is now equipped with mechanical pickers.

A system of fire protection lines, fire hydrants, fire pump, etc., in stalled.

A bore hole is being drilled from surface to carry steam to the inside pump.

Every effort is being made by the present operators to bring this colliery in a safe working condition.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Auchincloss.—Made no improvements of note outside at this colliery.

Inside improvements consist of the following:

Seven by twelve rock tunnel from Baltimore to Forge vein. Length 190 feet.

Seven by twelve rock tunnel for ventilation, Forge to Baltimore vein, on a pitch of 30 degrees.

No. 5 tunnel No. 2 shaft was extended from Forge vein to Ross vein, a distance of 369 feet.

Besides this three other short rock tunnels were driven through faults, being necessary in connection with the development and ventilation of this colliery.

During the year several mine fires occurred at this colliery, some of which were very difficult to contend with, but fortunately no one was injured in subduing the fires.

Bliss.-No improvements of note were made either inside or out

side at this colliery during the year.

Truesdale.—This mammoth breaker began operation on November 8, and is one of the largest in the Anthracite region. The management of the company has spared no labor or expense in putting up

this plant, consisting of improved and up-to-date machinery. Great results will be expected from this colliery some few years hence, when the shafts are fully developed, which of course is absolutely necessary in cases of this kind.

ALDEN COAL COMPANY

Outside.—A concrete reservoir 40x60x7 with a capacity of 112,000 gallons, has been erected to supply the colliery and dwellings with water.

An addition has been made on the breaker to be used for a washery for the purpose of washing the small size coal.

A steel conveyor line 300 feet long has been erected to carry fuel

from washery to boiler house.

One set of 200 H. C. water tube boilers has been erected and enclosed.

An air shaft 16 feet x 18 feet has been sunk from surface to George vein, over which has been erected a 24 foot Vulcan fan, all of which is made of steel.

Inside.—A tunnel from Cooper to Hillman vein, 120 feet, completed.

A slope has been driven in the Cooper vein about 800 feet, also one in the Bennett vein; 900 feet of these slopes will continue to the basin.

Mine Foremen's Examinations

The examination for mine foremen and assistant mine foremen was held at Wilkes-Barre high school May 8 and 9.

The examining board was James Martin, Mine Inspector; Gwilym Edwards, Superintendent; Thomas Finn and Felix Wisniefski, miners.

The following persons received certificates:

Mine Foremen

Clarence S. Robbins, David W. Phillips, Walter E. Davis, Fred Lancaster, H. C. Kreiger, George A. Bound, John F. Kane, Joseph P. Evans, James C. Anderson.

Assistant Mine Foremen

Andrew Seletski, Henry Amos, William T. Dickie, Joseph P. Gibbon, D. J. Jones, Nicholas Cook, Lemuel E. Fine, Harry A. Mills, William Gwyn, Alfred W. Downs, David M. Stanton, Charles F. Gallagher, Edwin J. Richards, Wm. Broderick, John B. Corgan, John C. Hermansen, David W. Davies, Albin Molin, Evan T. Fulton, Zachariah Davis, Evan W. Owens, Evan Q. Owens, Howard Davis, William James Varker.



Eighth District

LUZERNE COUNTY

Wilkes-Barre, Pa., February 28, 1906.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my annual report as Inspector of Mines for the Eighth Anthracite District, for the year ending December 31, 1905. The report gives the statistical information as required by law, and also a tabulated and brief description of the fatal and non-fatal accidents that occurred during the year, with other useful information.

Respectfully submitted,

D. T. DAVIS, Inspector.

SUMMARY OF STATISTICS

| Number of collieries, | 17 |
|--|-----------|
| Number of mines, | 35 |
| Number of mines in operation, | 35 |
| Number of tons of coal shipped to market, | 6,230,618 |
| Number of tons used at mines for steam and heat, | 447,411 |
| Number of tons sold to local trade and used by employes,. | 91,993 |
| Number of tons produced, | 6,770,022 |
| Number of persons employed inside of mines, | 9,256 |
| Number of persons employed outside, | 3,353 |
| Number of fatal accidents inside of mines, | 38 |
| Number of fatal accidents outside, | 10 |
| Number of non-fatal accidents inside of mines, | 70 |
| Number of non-fatal accidents outside, | 11 |
| Number of tons of coal produced per fatal accident inside, | 172,460 |
| Number of persons employed per fatal accident inside | 243 |
| Number of persons employed per fatal accident outside,. | 335 |
| Number of persons employed per non-fatal accident inside, | 132 |
| Number of persons employed per non-fatal accident out- | |
| side, | 304 |
| Number of wives made widows, | 33 |
| Number of children orphaned, | 83 |
| Number of steam locomotives used inside of mines | 4 |
| Number of steam locomotives used outside, | 13 |
| Number of compressed air locomotives used inside, | 3 |
| Number of electric motors used inside, | 15 |
| Number of fans in use, | 40 |
| Number of gaseous mines in operation, | 31 |
| Number of non-gaseous mines in operation | 4 |

TABLE A

PRODUCTION OF COAL

| Names of Operators | Tons |
|--|------------|
| Lehigh and Wilkes-Barre Coal Company, | 1,679,441 |
| Delaware and Hudson Company, | 1,315,875 |
| Delaware, Lackawanna and Western Railroad Company. | 1,151,402 |
| Parrish Coal Company, | 687,644 |
| Kingston Coal Company, | 668,480 |
| West End Coal Company, | 513,795 |
| North American Coal Company, | 294,850 |
| Plymouth Coal Company (People's Bank, Receiver), | 190,206 |
| Old Plymouth Coal Company, | 179,507 |
| George F. Lee Coal Company, | $53,\!102$ |
| West Nanticoke Coal Company, | $35{,}720$ |
| | 0.550,000 |
| Total, | 6,770,022 |
| | |
| Production by Counties | |
| Luzerne, | 6,770,022 |

TABLE B.-Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

| | her non-tatal accident | 120.00 | 304 |
|---------------------|---|---|-----------------------------------|
| əbis | Number of employes out | NAT | 8 |
| əpis | Number of employes in per non-fatal accident | 138 25 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 132 |
| əpis | Number of employes out | 162 189 253 253 | 335 |
| əbisı | Number of employes in per fatal accident | 258 245 249 249 483 122 97 | 243 |
| s | Total number of employe | 2,714 2,959 2,023 1,677 1,437 1,437 1,577 1,157 1,157 1,157 | 12,609 |
| əbi | Number of employes outs | 649 3897 4433 166 50 68 108 | 2,353 |
| əţ | Number of employes insid | 2,065 2,201 1,626 1,244 967 731 291 125 | 9,256 |
| per | described to so the soul produced to so the soul state of the soul soul soul soul soul soul soul soul | 88, 392 131, 588 164, 486 42, 978 95, 497 57, 088 190, 206 53, 102 | 102,917 |
| per | Tons of coal produced fatal accident inside | 209, 930 146, 208 230, 280 137, 529 334, 240 85, 632 63, 402 | 172,460 |
| dents | IstoT | 22 14 9 16 17 11 | 81 |
| Non-fatal Accidents | əbistuO | ω 4.61 °С1 | 11 |
| Non-fa | əbisnī | 119 110 116 116 | 02 |
| ents | TstoT | 1 37200001 | 49 |
| Fatal Accidents | əbistuO | 44 | 10 |
| Fata | əbiznI | တတ္ကက္ကေလ မွာ က | 555 |
| | Names of Operators | Lehigh and Wilkes-Barre Coal Co., Dielaware and Hudson Co., Di. Li. and W. R. R. Co., Parrish Coal Co., West End Coal Co., West End Coal Co., George F. Lee Coal Co., Month American Coal Co., Month American Coal Co., Month American Coal Co., Miscellaneous companies. | Totals and averages for district, |

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

| | | | | | | | M | onth | s | | | | | |
|--|--------------|----------|-------|-------------|-----|-----------------------------|----------------|-------------|---------------|----------------------|-----------------|--|--|---|
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Falls of coal. Falls of slate, Falls of roof, Mine cars, Explosions of gas and dust, Premature blasts, Falling into shafts, Miscellaneous, Totals, Causes of Accidents Outside Machinery, Miscellaneous, Totals, Grand totals inside and outside, | 1 == 1 | 1 1 | 3== | 1 1 3 === 3 | | 1 1 1 3 === | 1 3 1 5 == 2 7 | 2 1 5 1 1 6 | 1 2 = 1 1 1 3 | 1 2 == 1 1 1 1 1 1 3 | 1 4 === 1 1 1 5 | 1 2 1 4 == 2 2 | 10 1 15 5 2 3 1 1 1 38 === 5 5 5 1 1 1 48 | 26.32 2.63 39.47 13.16 5.26 7.90 2.63 2.63 100 ===== 50.00 50.00 |

TABLE D.-Classification of Non-fatal Accidents Inside and Outside of Mines

| | | | | | | | M | onth | s | | | | | |
|---|---------|----------------------|---------------|---------|-----|-------|-----------------------|--------|--------------|---------|----------|----------|------------------------------|---|
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Falls of coal, Falls of slate, Falls of roof, Mine cars, Explosions of gas and dust, Premature blasts, By mules, Miscellaneous, | 1 2 4 | 1 3 2 1 | 1 2 2 2 2 2 1 | 1 1 3 1 | 1 2 | 1 1 1 | 3 2 1 1 1 1 | 2 4 | 2 | 1 3 | 1 | 1 1 1 | 5 4 16 19 8 8 | 7.14 5.71 22.86 27.14 11.43 11.43 2.86 11.43 |
| Totals, | 7== | 7== | 13 | 7== | 5 | 3== | 8 == 8 | 6 | 4 == 2 | 6== | 1== | 3 | 70 | 100 |
| Machinery, Miscellaneous, | 1 | 1 | 1 | i | 1 | 1 | | | 1 | | | | 4 3 4 | 36.36 27.27 36.37 |
| Totals, | 8 | -1-8 | 1 14 | 5 | 7 | 4 | | 6 | 7 | 6 | 2 | 3 | 11 S1 | 100 |

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|---|---------|----------|-------|--------|-------------|------|------|--------|-----------|---------|----------|----------|------------------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Inside Miners, Miners' laborers, Drivers and runners, Company men, | | 1 | 2 1 | 2 1 | 2 2 1 | 2 | 3 2 | 3 1 | 2 | 1 1 | 2 2 | 2 1 | 23 1) 1 |
| Totals, | 1 | 1 | 3 | 3 | 5 === | 3 | 5 | 5 | 2 | 2 | 4 | 4 | 38 |
| Outside Blacksmiths and carpenters, Engineers and firemen, Slatepickers (boys), All other employes. | 1 | | | | | | 2 | 1 | i | 1 | ···· | 1 | 1 1 4 1 |
| Totals, | 1 | | | | | . 1 | 2 | 1 | 1 | 1 | 1 | 2 | 10 |
| Grand totals inside and outside, | 2 | 1 | 3 | 3 | 5 | 4 | 7 | 6 | 3 | 3 | 5 | 6 | 48 |

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

| , | Months | | | | | | | | | | | | |
|---|---------|----------|-------|-----------------|---------|------|--------------------------------|-------------|-----------|-----------------|----------|----------------------|--------------------------------------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Miners. Miners' laborers, Drivers and runners, Doorboys and helpers, Company men, Totals, Outside | 1 7 | 7 | 13 | 2 2 3 | 3 1 1 5 | 3 | 4 2 1 1 1 8 | 3 1 6 | 3 1 | 1 2 3 | 1 = - | 1 2 3 = | 29 23 9 3 4 70 === |
| Engineers and firemen, Slatepickers (boys), All other employes, | | | i | | | | | | 1 1 | | 1 | | 3 4 |
| Totals, | - | 8 | 1 14 | 8 | 7 | 1 4 | 8 | 6 | 7 | 6 | 2 | 3 | 81 |

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|---|---------|----------|--------|-------|-----|------|-------------------------------|--------------------------|-------------|---------|----------|----------------------|--------------------------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| American, Welsh Irish, German, Polish Italian, Slavonian, Lithuanian, Austrian, Russian, Greek, | | | 1 2 | 1 1 | 2 | 2 | 1 1 1 2 1 | 1 2 1 1 | 1 1 1 | 2 | 2 1 | 2 1 2 1 | 6 2 5 1 14 1 6 7 4 1 1 1 |
| Totals, | 2 | 1 | 3 | 3 | 5 | 4 | 7 | 6 | 3 | 3 | 5 | 6 | 48 |

TABLE H.-Nationality of Persons Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|---|---------|----------------------|----------------|-------------|-----------------|-------|------|--------|------------|---------|----------|----------|--------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| American English, Welsh, Irish, German, Polish | 1 2 1 | 1 1 1 1 | 2 1 | 2 1 1 | 2 1 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 1: |
| Slavonian. Lithuanian Austrian, Russian, Totals, | 2 8 | 8 | 1 4 2 | 1 1 8 | 1 1 7 | 1 1 4 | 2 | 1 | 2 7 | 1 | - 2 | 3 | - , |

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each person rer minute

| Average number of cubic feet per minute provided for each person | 500 500 500 500 500 500 500 500 500 500 |
|---|---|
| Number of persons employed inside | 446. 155 119 119 250 250 250 250 250 250 250 250 250 250 |
| Number of cubic feet per minute passing out at outlet | 487,000 487,080 317,370 136,600 227,000 196,000 |
| Total quantity of air per minute circulating in all the splits in cubic feet. | 312, 000 285, 100 54, 450 285, 200 154, 000 114, 000 1184, 000 1184, 000 1185, 000 1186, 000 1186, 000 |
| Number of cubic feet of air per minute entering the mine at inlet | 414,000 443,950 299,290 200,000 310,000 150,000 150,000 |
| Number of splits of air currents | 11 14 4 19 00 11 11 11 11 11 11 11 11 11 11 11 11 |
| Power used | Steam, Steam, Steam, Steam, Steam, |
| nal to smal | Guibal, Guibal, Guibal, Guibal, Guibal, Guibal, Guibal, |
| Water gauge developed—in inches | |
| Number of revolutions per minute | 665544488555 8 8848855 |
| Depth of blades in feet | €000000000000000000000000000000000000 |
| Width of blades in feet | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |
| Dlameter of fan in feet | 9444445 88 84 44 44 44 44 44 44 44 44 44 44 44 |
| Method of ventilation | Fan. Fan. Fan. Fan. Fan. Fan. Fan. Fan. |
| guseens on non-Erseons | Gaseous, |
| Hind of opening | Shaft Shaft Shaft Shaft Shaft Drift Drift Drift Shaft |
| Names of Operators and Mines | Lehigh and Wilkes-Barre Coal Co Nottingham No. 15. Lance No. 11, Reynolds No. 16, Wanimle No. 18, Delaware and Hudson Co. Boston, Plymouth No. 3. Plymouth No. 2.

| 294 | 297 | 2.2 2.2 2.3 1.0 | 3356 6255 8800 8800 8800 8800 | === === 625 |
|---|--|--|---|--|
| 908 | 350 | 198 320 418 | | |
| 356,400 | 130,00) | 80, 000 111, 000 96, 200 | 181,750 27,100 19,300 20,000 24,000 17,100 20,000 | 121,000 |
| 266,600 | 104,000 | 40,000 72,200 85,000 | 112,000 15,000 15,000 15,000 16,000 16,000 13,000 | 98,000 |
| :33,500 | 127,000 | 65,000 105,200 94,000 | 177, S60 177, S60 177, 100 178, 100 178, 000 178, 000 178, 000 178, 000 | 120, 205 |
| 9 9 | 10 17 | 1 + 1010 | 9 44444 | t- - - |
| Steam, | Steam, | Steam, | Steam Electric, | |
| Dickson open, Dickson closed, Dickson closed, Dickson closed, Dickson open, | Guibal, | Guibal, Guibal, Guibal, | 6 4 75 .1 Guibal. Steam 6 6 6 90 1.4 Guibal. Electric. 2.4 2.4 200 .1 Sturdevant. Electric. | Guilial, Steam |
| ### ################################## | | 1.3.3 | 0 0 8 | |
| 105 175 95 110 1100 | 0.08 0.05 0.05 0.05 0.05 | 09 09 | 75 60 1.4 60 8200 1 | ଟ: |
| & & & 5 4 4 & & & € | 5.73.72.01 4.88.88.44 | 7.8 | 40000 | |
| | 8. 11. 8. 8. 9. 15. 8. 15. 8. 15. 15. 15. 15. 15. 15. 15. 15. 15. 15 | 8 8 W | 6 6 6 69 1.4 6 69 8.0 8.4 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 | 20 6.6 5.6 |
| 16 20 35 16 16 | 3888 | 22 22 21 | 8 12 15 8 12 15 8 12 15 8 12 15 8 15 8 15 8 15 8 15 8 15 8 15 8 15 8 | 50 |
| Fan, Fan, Fan, Fan, Fan, | Fan, Fan, Fan, Fan, | Fan,) Fan,) Fan | Fan. Fan. Fan. Fan. Natural, Natural, Natural, Natural, Natural, | Fan Natural. Natural. Natural. |
| Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, | Gaseous, Gaseous, Gaseous, Gaseous, | Gaseous, Gaseous, Gaseous, | Gaseous, Gaseous, Gaseous, Non-gas, Non-gas, Non-gas, Non-gas, | Gaseous, Non-gas, Non-gas, Non-gas, Non-gas, |
| Shaft Shaft Shaft Shaft | Slope. | S Name of the state Design | zhaft |
| Delaware, Lackawanna and Western Railroad Co. Woodward, Avondale, Avondale, | Parrish Coal Co. Parrish. Parrish. Buttonwood. | Kingston Coal Co. Gaylord, Gaylord, Kingston No. 3, Kingston No. 2, | West End Coal Co. West End. West End. West End. No. 1 Lee. No. 2 Lee. Golden. Church. | Pedson, George F. Lee Coal Co. Chauncey. |

TABLE 1.-Operators, location of collieries, railroads, etc.

| Railroad to Mine | C. R. R. of N. J. | Dela, and Hudson | D., L. and W. | C. R. R. of N. J. | D., L. and W. D., L. and W. | Pennsylvania | D., L. and W. | D., L. and W. | C. R. R. of N. J. | Pennsylvania | D., L. and W. |
|-----------------------------------|---|--|---|---|--|-------------------|-------------------|-----------------------|---|--|-----------------------|
| Post Office | Wilkes-Barre, | Scranton, | Kingston, Kingston, | Plymouth, | Edwardsdale, | Shickshinny, | | | Plymouth, | | D., L. and W. |
| Name of Superintendent | Morgan R. Morgan.) Inside Supt. W. H. Herring. Out- | E. R. Pettebone, | Henry G. Davis, | Thomas R. Evans, | Gwilliam Edwards, Gwilliam Edwards, | H. A. Fillmore, | | | J. J. Richards, | | |
| Post Office | Wilkes-Barre, | Scranton, | Scranton, | Plymouth, | Kingston, | Scranton, | Plymouth, | Wilkes-Barre, | Wilkes-Barre, | Kingston, | Plymouth, |
| Name of General Superintendent | С. F. Huher, | C. C. Rose, | R. A. Phillips, R. A. Phillips, | H. H. Ashley, | R. S. Mercur, | H. H. Brady, Jr | James B. Davis, | George F. Lee | H. W. Samms, | A. D. W. Smith, | H. E. Rissinger, |
| County | Luzeine | Luzerne, | Luzerne, | Luzerne | Luzerne, | Luze*ne | Luzerne, | Luzerne | Luz rne, | Luzerne, | Luzerne, |
| Names of Operators and Collieries | Lehigh and Wilkes-Barre C al Co Nortingfiam, Lamber, Reynolds, Wantmie, | Plymenth No. 2. Plymenth No. 2. Plymenth No. 3. Plymenth No. 4. Plymenth No. 4. Plymenth No. 5. Bloston. | Delaware Lackawanna and West- ern Railread Co. Weselward. | Parrish Coal Co. Parrish, Euttonwood, | Kingston Coal Co. Kingston No. 2. Gaylerd, | West End Coal Co. | Plymouth Coal Co. | George F. Lee Coul Co | North American Coal Co. Plymouth washery, | West Nanticoke Coal Co. West Nanticoke washery, | Old Plymouth washery, |

TABLE 2.-Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quan-

| tity of powder and dynamite used, etc. | Number of tons used at collieries Yumber of tons used at collieries Yumber of tons used at collieries Yumber of tages worked (Totals are averages, not including washeries) Xumber of tatal accidents Sumber of tatal accidents Yumber of pennication of tatal accidents Xumber of tatal accidents | 201 C C C C C C C C C C C C C C C C C C C | 1,545,474 122,286 11,18 1,679,441 236 2714 12 22 46,466 92,301 422 | 2 | 1,173,500 135,295 7,530 1,315 | Co. Luzerno. 915,382 50,514 6,379 1,002,675 279 1,512 4 9 27,551 10,043 1 Luzerno. 121,530 20,076 1,121 148,727 1,77 51 1 1 8,228 1,410 | 1,073,112 70,300 7,70 1,131,402 21\ 2,123 7 9 28,502 11,473 18 | Luzerne, 245,876 11,570 4,080 261,426 228 694 4 7 6,937 88,655 115 11,089 5,604 4.669 247 183 1 9 18,988 635 135 | 651, 564 29, txii 9, 6in (87, 614 29) 1, 677 5 16 90, 845 129, 845 350 |
|--|---|--|--|--|-------------------------------|---|--|--|--|
| Jo | Sumber of tons to soul shipped | 474 179 179 179 | 1,545, | i | | | 1,073, | | 694, |
| | Names of Operators and Collecties | Lehigh and Wilkes-Farre Coal Co. Northmeham. James. Regulates. Wanhints. | Totals, | D-laware and Hudson Co. Plymenth No. Plymenth No. 1. Plymenth No. 6. | Totals, | Western Railroad Co. | Trals, | Parrish. Ceal Co. L. Patrish Ceal Co. L. Patrish. L. L. Pattenwood, L. L. L. L. L. L. L. L. L. L. L. L. L. | Totals, |

*Coal taken through Plymouth No. 5.

TABLE 2.-Continued

| | 2. | | | | | | | • | |
|--|---|---------|-------------------|-------------------|------------------------|-------------------------|-----------------------|--|---------------|
| Number of horses and mules | 54 | 181 | 83 | 38 | 24. | 8 | 5 | | 1,547 |
| Number of pounds of dynamite used. | 1,675 | 5, 125 | 119,325 | 3,700 | 4,000 | | | | 363,887 |
| Number of kegs of powder used | 4,631 | 24,625 | 12,415 | 3,301 | 1,250 | | | | 172,186 |
| Number of non-fatal accidents | 19 | t- | = | - | - | | | | 81 |
| Number of fatal accidents | == | c1 | 7 | 60 | | - | | | 48 |
| Number of employes | 329 1,108 | 1,437 | 685 | 457 | 175 | 89 | 82 | 32 | 12,609 |
| Number of days worked (Totals are averages, not including washeries) | 189 248 | 218 | 281 | 225 | 161 | 267 | 203 | 173 | 230 |
| Total production of coal in tons | 156, 722 512, 758 | 668,480 | 513, 705 | 190,206 | 53, 102 | 1 00. 1 | 179,507 | 35,720 | 6,770,022 |
| Number of tons sold to local trade | 1,749 | 26,521 | 8,691 | 3,020 | 551 | 9,843 | 6,939 | 507 | 91,993 |
| Number of tons used at collieries for steam and heat | 9,911 | 21,950 | 30,000 | 20,000 | 5,000 | 9,570 | 7,300 | 1,940 | 447, 411 |
| Number of tons of coal shipped | 144,062 | 630,009 | 475,194 | 167,186 | 47,551 | 275, 437 | 165,268 | 33,273 | 6,230,618 |
| County | Luzerne, | | Luzerne | Luzerne, | Luzerne, | Luzerne | Luzerne, | Luzerne | |
| Names of Operators and Collieries | Gaylord, Kingston Coal Co. Kingston No. 2. | Totals, | West End Coal Co. | Plymouth Coal Co. | George F. Lee Coal Co. | North American Coal Co. | Old Plymouth Coal Co. | West Nanticoke Coal Co. West Nanticoke washery, | Grand totals, |

TABLE 2.-Recapitulation

| ZZ, EIGHTH MI | |
|--|---|
| Number of horses and mules | 423 3355 180 181 833 67 1547 |
| Number of pounds of dynamitable | 92, 301 5, 658 11, 453 122, 325 5, 125 119, 325 7, 700 7, 700 |
| Number of kegs of powder used | 40, 496 40, 672 28, 582 29, 685 24, 695 12, 415 4, 551 172, 186 |
| Number of non-fatal accidents | 22 114 16 16 7 7 111 2 81 |
| stanbioos latal to undanuk | 123 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 |
| Zumber of employes | 2,714 2,959 2,053 1,677 1,437 814 814 |
| Average number of days worked, | 234 218 218 218 218 281 281 281 281 |
| Total production of coal in tons | 1,679,411 1,315,875 1,151,402 687,644 688,480 513,795 753,385 6,770,022 |
| Number of tons sold to local trade and used by employes | 11, 181 7, 530 7, 700 9, 600 26, 521 8, 601 20, 860 91, 993 |
| Number of tons used at collieries | 122, 286 135, 285 70, 590 23, 480 21, 950 30, 000 43, 810 |
| Number of tons of coal shipped to market | 1,545,974 1,173,650 1,073,112 651,564 629,009 475,194 638,715 6,230,618 |
| County | Luzerne, |
| Names of Operators | Lehigh and Wilkes-Barre Coal Co., Delaware and Hudson Co., Delaware Lackawanna and Western Railroad Co., Rarrish Coal Co., West End Coal Co., West End Coal Co., West End Coal Co., |

TABLE 2. -PART 2.

| - | | 1+w 10 + 00 1 |
|-------------------|--|---|
| | Number of electric dyna | (2) 44 (3) (%) (%) |
| 90Bl | Quantity delivered to sur per minute—gallons, | 4.0.% |
| less. | snolleg ni Mionys') otunian | X 5 6 6 6 7 7 7 8 8 8 9 8 9 8 9 8 9 8 9 9 9 9 9 9 |
| Zui~e | Number of pumps delive | 8 |
| | Tetal horse rower | 0.100 0.100 0.100 0.100 0.100 0.100 0.100 0.100 |
| jo s | Zumber of steam engine | 多爱的电阻器的4.50mg E |
| Ves | गंग) स्ट्री | 5 00 1 1 1 1 1 |
| Locomotives | Ti A. | 10 10 10 E E |
| Luc | Steam | 10 10 00 E |
| | Lotal horse power | |
| 30ilers | Jamed astoH | 6,538 1,900 4,125 1,900 1,915 1,915 1,800 23,51 250 250 |
| Number of Boilers | Tubula: | 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0 |
| Numl | Herse Lower | 93228 6 |
| | Isolubnity') | A = 9 A 8 |
| | County | Luzerne |
| | Names of Operators | Lehigh and Wilkes-Barre ('ad Co., Delawate and Hudson Co., Delawate and Hudson Co., Ramsh Coal Co., Kingston Cad Co., Kingston Cad Co., Was Ball Coal Co., Was Ball Coal Co., Worth American Coal Co., Old Plymouth Coal Co., Old Flymouth Coal Co., North American Coal Co., North American Coal Co., North American Coal Co., North American Coal Co., North American Coal Co., Totals. |

TABLE 3.-Number of each class of employes inside and outside of mines

| - | Grand total inside and outside | 8688 | 9,714 | 1 25088 1 25088 | 2,959 | 1.92 | 9,023 | 684 983 | 1,677 |
|---------|-----------------------------------|--|---------|--|---------|--|---------|---------------------------------|---------|
| | Spirito fatoT | 164 173 173 173 | 648 | 197 183 183 | 218 | 262 | 397 | 190 | 433 |
| | All other employes | 2,5,5,7 | 597 | 842848 | 292 | 157 | 100 | 15.81 | 139 |
| | Восккоеретs and сlerks | क्ष स्वतः। स | 13 | 1 0103 0301 | ×. | 4.01 | 9 | | 6 |
| Outside | Slate pickers (men) | 26 118 118 | 55 | 124 43 | + | 21 | 12 | 2.8 | 159 |
| Out | Slate pickers (boys) | 52823 | 165 | 198 848 | 197 | 98 | 61 | 17 18 17 18 | 됩 |
| | Engineers and firemen | 98538 | 1-6 | 25 c c 24 41 | 14- | 82 | 0.5 | ត្រ ត | 43 |
| | Blacksmiths and carpenters | F-77-0 | | ७ ७० ११ - ७ | L- | 寄せ | ē5 | t- & | 16 |
| | Богетен | | | | 10 | | 01 | | G1 |
| | Superintendents | :::: | | | : | | : | L C3 | 00 |
| | Total listoT | 511 674 210 670 | 2,065 | 255 255 255 255 255 255 255 255 255 255 | 2,201 | 1,250 | 1,626 | 504 | 1,241 |
| | All other employes | 27 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 25.5 | #15.85.95 #15.85.95 | 138 | 67 | 61- | | |
| | Сотрапу теп | 45 | 122 | \$88884 | 306 | 243 | 1551 | 94 | 264 |
| | Lampmen — . — . — . — . — | 9 | 07 | 60 :01 01 | 30 | 5-6 | 16 | 4.01 | 9 |
| | Door boys and helpers | 25 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 66 | 84×11 | 93 | 19 | 92 | 34 | 80 |
| Inside | Drivers and runners | 99 98 98 98 98 | 234 | 45555E | 280 | 109 | 14 | 87. | 148 |
| | srenodal 'sreniM | 137 195 62 184 | 518 | 156 158 139 139 126 | 140 | 412 | 537 | 144 | 354 |
| | Miners | 275 246 546 55 55 56 57 | 101 | 187 193 101 116 116 | 113 | 319 | 111 | 15.09 | 574 |
| | Fire bosses and assistants | (~ × e) Ф | 82 | 400010000 | 12 | 0.00 | 12 | 1 12 9 | = |
| | nesistant mine foremen | ₩ 21 H 21 | 9 | : :- | 00 | ¢1 | 00 | 63.60 | 2 |
| i | Mine foremen | - | 7 | | 10 | 37 | 600 | | 21 |
| | County | Luzerne, | | Luzerne, | | Luzerne, | | Luzerne, | |
| | Names of Operators and Collieries | Lehigh and Wilkes-Barre Coal Co. Labre. Swit ingham, Reymods. Wanimie, | Fotals, | Ibelaware and Hudson Co. Plymouth No. 2. Plymouth No. 4. Plymouth No. 4. Plymouth No. 5. Plymouth No. 5. | Totals, | D. L. and W. R. R. Co. Woodward, Avondale, | Totals, | Parrish Coal Co. Burtonwood, | Totals, |

TABLE 3.—Continued

| | Grand total inside and outside | 329 | 1,437 | 985 | 15.4 | 175 | 89 | 82 | 600 | 12,609 |
|---------|-----------------------------------|---|---------------|-------------------|-------------------|-----------|---|-----------------------|---|---------------|
| | Spistuo latoT | 111 | 470 | 15 | 166 | 20 | 89 | 9.5 | 60 | 3,353 |
| | All other employes | 145 | 196 | 123 | 89 | 13 | 46 | 37 | 10 | 1,445 |
| | Bookkeepers and clerks | ⊢ ∞ | 4 | 00 | 63 | | p-4 | 61 | - | 29 |
| Outside | Slate pickers (men) | | | 60 | 10 | 00 | | 16 | 9 | 470 |
| Out | Slate pickers (boys) | 8.8 | 130 | ST | 4+ | E | | 6 | v. | 202 |
| | Engineers and firemen | 真智 | 03 00 1 | 29 | 18 | - | 6 | 9 | 100 | 371 |
| | Elacksmiths and earpenters | ~ % | 45 | 9 | 9 | 00 | 01 | 60 | - | 159 |
| | Foremen | ⊢ ≎1 | 1 22 | - | 1 | - | - | ca | | 6.5 |
| | Superintendents | | 21 | 1 - | - | | | | : | 00 |
| | əbizni IstoT | 218 | 196 | 731 | 291 | 125 | | 1 1 | | 9,256 |
| | səyolqmə təhtə ilk | 38 | 48 | 27 | 20 | ıa | | | | 535 |
| | Сотрапу теп | 34 | 855 | -12 | 44 | 15 | | # 4 | | 1,03 |
| | Punitanen | - | | 4 | 1,0 | | 1:1 | Ç1 | | 159 |
| Inside | Door poys and helpers | 28 e | 34 | 53 | 19 | 4 | | | | 434 |
| Ins | Privers and runners | 98 | 140 | 93 | 34 | 00 | | | : | 1.079 |
| | Miners' laborers | 53 | 954 | 85. | 08 | ផ | | ! : ! ! : ! | | 2,842 |
| | Miners | 258 | 663 | 250 | 5. | 40 | : | | - : | 3, 128 |
| | Fire bosses and assistants | : = | | - | . 00 | - | : | | | 1.9 |
| | nemerot enim tustsissi. | | | 12 | | | | : | : : | 651 |
| | Mine foremen | \$3 T | 9 | 21 | - | - 1 | | | | 21 |
| | County | Luzerne, | | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | |
| | Names of Operators and Collieries | Gaylord, Kingston coal Co. Kingston No. 2. | Totals, | West End Coal Co. | Plymouth Coal Co. | Chauncey, | North American Coal Co. Plymouth washery, | Old Plymouth Coal Co. | West Nanticoke Coal Co. West Nanticoke washery. | Grand totals, |

*Flushing culm.

TABLE 3.—Recapitulation

| | objetuo bas objeti instol baseli | 2, 714 2, 959 2, 023 1, 677 1, 437 457 175 182 182 182 182 |
|--|----------------------------------|--|
| ************************************** | Total outside | 649 758 397 433 470 470 166 50 176 3,353 |
| | seyolqme redto III. | 265 295 205 205 115 88 88 89 119 88 89 119 88 119 119 119 1 |
| | Вооккесретя апд сleтks | © × ≈ ∞ 4 0 0 H 4 0 |
| lde | Slate pickers (men) | 24 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| Outside | (syed) sreweit stafs | 5555555 55555 5555 5555 5555 5555 5555 5555 |
| | Engin ers and Atemen | 18 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 |
| | Blacksmiths and carpenters | 25 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| | Foremen | 412010100-444 |
| | Superintendents | :::::::::::::::::::::::::::::::::::::: |
| | apizni IstoT | 2,065 1,246 1,246 1,244 1,244 1,241 1,241 1,241 1,256 1,256 |
| | All other employes | 1388 1388 129 120 120 120 120 120 120 130 130 130 130 130 130 130 130 130 13 |
| | (,curbany men | 251 250 251 264 267 272 272 273 274 275 275 275 275 275 275 275 275 275 275 |
| | Pumpmen | 0 × 0 4 10 11 10 |
| Incide | Door pole and helpers | 92 0 1 1 8 4 8 4 8 4 8 4 8 4 8 4 8 4 8 4 8 8 4 8 8 4 8 |
| Ir | signing bas signifil | 40001 40004 40004 5004 5004 6004 6004 6004 60 |
| | Miners' laborers | 2, 842 2, 842 3, 842 3, 842 |
| | Miners | 754 7113 714 717 717 718 718 718 718 |
| | Fire bosses and assistants | 88888444 |
| | Assistant mine foremen | æ 22 52 72 12 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| | Mine foremen | 410001001 |
| | County | Luzorne |
| | Names of Operators | Lehigh and Wilkes-Barre Coal Co. Delaware and Hudson Co. D. L. and W. R. R. Co. Rentsh Coal Co. Kingston Coal Co. West End Coal Co. Plymouth Coal Co. George F. Lee Coal Co. George F. Lee Coal Co. Miscellaneous companies, |

TABLE 3.—PART 2.

| Collierles County Collierles County Collierles County Collierles County Collierles County Collierles County Coun |
|--|
|--|

*Coal taken through No. 5 colliery.

TABLE 4.—Fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Attempted to step over shaft and became fastened in sprocket wheel. Outside. Instantly killed by a fall of rock. Vivile examining the roof it tell on him. Featally injured by a fall of top state. Instantly killed by a fall of top rock. Instantly killed by a fall of top rock. Died April 3 at hospital. Fatally injured by a rail of top rock. Fatally injured by a fall of top rock. Fatally injured by a fall of top rock. Instantly killed by a fall of top rock. Fatally injured by a fall of top rock. Instantly killed by falling under an empty of the fatally injured by a fall of top rock. Fatally injured by a fall of top rock. | Outside, Instandy killed by a fall of top rock. Instandy killed by a fall of top rock. Fatally injured by an explosion of gas. Died at Mercy Hospital July 19. Fatally injured by a fall of top rock. Died same night. |
|---------------------------------------|--|--|
| County | Luzerne, | |
| Name of Mine | Lance No. 11, Fingston No. 2 Kingston No. 2 Boofson, West End, West End, Parrish, No. 2 Nottingham, West End, Nottingham, West End, Lance No. 11, Reynolds, Woodward, Plymouth No. 5 Avondale, West End, Notatingham, West End, Notatingham, West End, | Lance, Parrish, Lance, West End, |
| Number of o.phans | | e 0 |
| swobiw to redminN | The same and the same at the s | M.M. M. M. |
| Married or single | | 955 F |
| | | |
| nothegueso | Slater, Miner, Miner, Miner, Miner, Miner, Isaborel Miner, Laborel Miner, Laborel Miner, Laborel Miner, Laborel Miner, Laborel Miner, Co. m Laborel Laborel Miner, Co. m Laborel Especial Miner, Co. m Laborel Especial Miner, Co. m | Miner, Miner, Labored Miner, |
| Nationality | American Welsh Welsh Welsh Slavonian Polish Polish Lithuanian Polish Lithuanian Polish Polish Polish Polish | Polish Austrian, Lithuamian, |
| Name of Person | Michael Chelus, John Burke, Jacob Mickolay, John Baluka, Frank Gonsuvek, Frank Basi, Stanley Paceka, Stanley Balls, Stanley Balls, Thomas Bardulis, John Mushill, Goorge Bessick, Andrew Metallick, Charles Hatten, Peter Webber, Andrew Miller, | Jeseph Sobleski, Jeseph Movankevicz, Adam Raklevicz, Frank Deitrick, |
| Insbissa to statt | Jan. Mayer 17 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 2 = 4 - 5 |

TABLE 4.-Continued

| Nature and Cause of Accident in Brief | Fatally injured by a fall of coal from | Fatally injured; Stuck by handle of | t 9. Ou injured | Died same day at Hospital. Instantly killed by a fall of top rock. Instantly killed by falling down slart. Instantly killed by a fall of top coal. Fetuly injured by machinery. Died at | Mercy Hospital same day. Outside, Fatally injured by a fall of top coal. Died | at Mercy Hospital same day. Fatally injured by premature blast. Died | at Mercy Hospital September IV. Fatally injured by falling from breaker to Fround. Died the same day at City Hos- | pital. Outside. Fatally injured by a fall of top coal. Died | Fatally injured by a fall of top rock. Died | Instantly killed by a fall of coal from the | Fatally injured by having his leg mangled in rolls. Died in City Hospital October | 31. Outside. Instantly killed; struck with flying coal | iron past. Instantly killed by a fall of coal from Instantly killed by a fall of coal from the side. |
|---------------------------------------|--|-------------------------------------|--------------------|--|--|--|---|--|---|---|---|---|--|
| County | | | | | | | Luzerne, | | | | | | |
| Name of Mine | Dodson,] | Nottingham, | West End, | Buttonwood, Woodward, Woodward, North American | washery. | Plymouth No. 2,. | Boston, | Plymouth No. 2,. | Plymouth No. 2,. | Nottingham, | Nottingham, | Plymouth No. 2,. | Podson, Woodward, |
| Number of orphans | İ | 2 | 6.1 | 6760-1 | : | 4 | : | 9 | 4 | : | : | : | 60 |
| Number of widows | | F-4 | - | | | - | | _ | # | | | : | + |
| Married or single | υż | M. | M. | XXXX. | υż | M. | υż | M. | M. | υi | vi | υż | ž.ĕi |
| 93A | 45.7 | 239 | 40 | 24812 | 45 | 55 | 17 | 47 | 35 | 22 | 17 | e.1 | 27 |
| noisequesO | Laborer, | Laborer, | Miner, | Miner, Footman, Laborer Engineer, | Miner, | Miner, | Slater, | Miner, | Miner, | Laborer, | Slater, | Laborer | Miner, |
| Vationality | Lithuanian,. | Greek, | Lithuanian,. | Polish, American, Polish, | Irish, | Irish, | Slavonian, | Polish, | Austrian, | Polish, | Polish | Austrian, | Lithuanian |
| Name of Person | Felix Motolevick, | Paul Shurack, | Charles Swithers, | Constant Semanski, William Newberry, John Armuski, Anthony Britrasham, | Timothy Conahan, | John Fisher, | Stephen Lynch, | William Schultz, | Frank Sigler, | Joseph Levan, | Frank Dopeow, | Michael Muisel, | William Wazopki, Peter Stuvoski, |
| Date of avoident | July 25 | 15 | Aug. 4 | 9 9 9 9 9 9 9 | 31 | Sept. 7 | 12 | 97 | Oct 5 | 16 | 30 | Nov. 11 | 학급 |

| Nov. 24 Michael Androck, Lithuanian. Dumpman 41 M. 1 5 Nottingham, Instantly killed by falling down tower shaft. Outside. 27 Martin Morris, Lithuanian Blater 67 S Wanimic No. 5 Really induced by a fall of rock. Died at City Hospital same night. Outside. 28 Jacob Stubblevine American Carpenter 49 M. 1 5 Plymouth No. 4. Luzerne Sprocket wheel. Died December 4 at Hospital. Outside. Died December 4 at Hospital. Outside. 18 John Thomas. Welsh Miner 46 M. 1 Parrish, mature blat. Instantly killed by fixing coal from a premature blat. | | | | | |
|---|--|---|---|---|---|
| 27 Michael Androdel, Lithuanian. Dumpman 41 M. 1 5 Nottingham, 27 Martin Morris, Polish, Miner, 34 M. 1 2 Plymouth No. 5. 9 Renjamin Consick, American Inish, 16 S. S. Boston, 9 Jacob Stubblevine, American Carpenter 49 M. 1 5 Plymouth No. 4 Luzerne, 18 John Thomas, Welsh, Miner, 46 M. 1 Partish, 19 John Orwehok, Slavonian Laborer, 30 M. 1 Boston, | Instantly Killed by Italiing down tower Statally Loutside. Fratally injured by a fall of rock. Died at | City Hospital same night. Instantly killed by machinery. Outside. Fatally injured by falling under Joaded trip. Died same night at Mercy Hos- | pital. Fatally injured by being caught in a sprocket wheel. Died December 4 at Exercise. | Instantis filled by flying coal from a premature blast. | Instantly killed by a fall of top rock. Fatally injured by being squeezed between car and prop. Died December 30. |
| 27 Michael Androski, Lithuanian. Dumpman 41 M. 1 5 Nottingham, 27 Martin Morris. Polish, Miner. 34 M. 1 2 Plymouth No. 5. 9 Renjamin Consick, American Road cleaner, 67 S. S. Wanimie No. 18. 9 Jacob Stubblevine. American Carpenter 49 M. 1 5 Plymouth No. 4. 18 John Thomas. Welsh Miner. 46 M. 1 Reynolds. 29 John Orwehok, Slavonian Laborer, 30 M. 1 Reynolds. | | | Luzerne, | | |
| 27 Michael Androski, Lithuanian. Dumpman 41 M. 1 5 No 27 Martin Morris, Polish, Miner. 34 M. 1 2 Pl 9 Pracises O'Brien, Irish, Road cleaner, 67 S. No No </td <td>ttingham, </td> <td>ston,animie No. 18,.</td> <td>ymouth No. 4</td> <td>rrish,</td> <td>ston,</td> | ttingham, | ston,animie No. 18,. | ymouth No. 4 | rrish, | ston, |
| 27 Michael Androski, Lithuanian. Dumpman 41 M. 27 Martin Morels. Polish. Miner. 34 M. 9 Penjamin Censick. American Slater. 16 S. 9 Jacob Stubblevine. American Carpenter, 49 M. 18 John Thomas. Welsh. Miner. 46 M. 18 Patrick Morahan. Irish. Miner. 46 M. 29 John Orwelok, Slavonian Laborer, 30 M. | 2 N O | M. Bo | - 5 - 1 | l Pa | 1 3 Bo |
| 27 Michael Andrakt, Lithuanian. Dumpman 41 27 Martin Morris. Polish. Miner. 34 9 Charles O'Brien. Irish. Road cleaner, 67 67 9 Jacob Stubblevine. American. Carpenter, 49 7 18 John Thomas. Welsh. 46 7 18 John Orwebok. Slavonian. 46 7 | | róró | - - - | M | 2.5 |
| 27 Michael Androski, Lithuanian Dumpman, 28 Martin Morris, Polish, Miner 29 Charles O'Brien, American Slater, 39 Jacob Stubblevine, American Carpenter, 39 John Thomas, Welsh, Miner, 39 John Orwebok, Irish, Miner, | 34 7 | 91 29 | 649 | 46] | 30 |
| 27 Michael Androcki, Lithutanian 28 Martin Morris, Polish, 29 Charles O'Brien, Irish, 39 Jacob Stubblevine, American 39 John Thomas, Welsh 39 John Orwchok, Slavonian | Dumpman, | Slater, Road cleaner, | Carpenter, | Miner, | Miner Laborer, |
| 27 Martin Morris, | Lithuanian. | American | American, | Welsh, | Irish, |
| | Michael Androtki, | Benjamin Censick, Charles O'Brien, | Jacob Stubblevine, | John Thomas, | Patrick Morahar John Orwehok, |
| | ÷ | | 6 | 18 | 20 |
| Nov | Nov. | Dec. | | | |

TABLE 5.-Non-fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Fractured leg struck by flying coal from a blast. Burmed on face and hands by explosion of sas. Left leg fractured by a devalided car. Burmed on hands and face by explosion of sas. Leg fractured by pile of plank striking him. Outside and bread lacerated by premature blast. Fractured arm and hody lacerated by premature blast. Fractured lay a fall of top coal. Fractured lay a fall of top coal. Fractured lay by a fall of top coal. Fractured lay by a fall of top coal. Fractured lay by a fall of top coal. Fractured lay by a fall of top rock. Fractured lay by falling down breaker lichy breaks by a fall of top rock. Fractured ribs and bruised back by falling where curred ribs and bruised back by falling of rock. | plosion of gas, second to the fractured by premature blast, skull fractured by premature blast, and rib. Lorft log fractured between devalled car and rib. Body bruissed by a fall of top rock. Ribs fractured by a fall of top rock, collar bone fractured by running against a prop. Fractured leg and rib by empty ears. Outside. |
|--|--|---|
| County | Luzerne, | |
| Name of Mine | M. Woodward, M. Lantee No. II, S. Nottingham, M. Plymouth No. 2. M. Parrish, M. Patrish, M. Wottingham, M. Ruttonywood, M. Rottingham, M. Ruttonywood, M. Rottingham, M. Rottingham, S. Madimie, S. Wadimie, S. Wadimie, S. Watrish, M. Patrish, M. Patrish, | Woodward, Wanimie, Nottingham, West End, West End, Lance No. 11, |
| Married or single | H H KK H H H H H K K H K H | Z Z XXXZ Z Z |
| 78, | 8 16 15 17 18 18 18 18 18 18 18 18 18 18 | 위원 부위호원 발 왕 |
| . ueihadnəsQ | Miner, Slopieman, Miner, Laborer, Miner, Lathorer, Miner, Lathorer, Miner, Lathorer, Slatter, Lathorer, Slatter, Lathorer, Miner, Miner, Miner, Miner, Miner, Miner, Miner, Miner, Miner, | Miner, Laborer Miner, Laborer Miner, Driver, |
| The state of the s | Polish, Polish, Weish, American Russian Russian Russian Russian Russian Russian Folish Polish Folish Folish Folish | |
| Name of Person | Michael Gorman, John W. Williams, Fatrick Car. Charles Parry, Harry Poveteavage, John Weduka, Milliams, The mas T. Williams, The mas F. | |
| nables to stud | Per a se se se se se se se se se se se se se | March 3 13 9 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 |

| Burned on face, neck and hands by explosion of gas. Burned on face, neck and hands by ex- | pussion of Ras. Fractured leg by a fail of slate. Fractured wrist between prop and car. Fractured thigh by a fall of slate. Fractured leg by a fall of slate. Bruised about the body by a fail of slate. Kight leg fractured by a derailed car. Compound fracture day a derailed car. | In the for on a moving wheei. Outside. Skull fractured by a fall of rock. Leg fractured hetween cars. Cut and bruised on body by a fall of coal. Ankle fractured between empty cars. Ankle fractured between empty cars. Find blown off by explosion of a box of casts the was trying to open, calls the world between cars. Outside. For curshed hetween cars. Outside. Left leg fractured withe trying to cross | in front of a moving car. Left hand and wrist crush-d While placing a valve in pump the plunger caught him. Outside. Two ribs fractured by a prop failing assiste him. | Leg fractured and scalp lacerated by a fall of top rock. Right leg fractured by a boaded car. Right arm fractured by connecting rod while engaged in cleaning compressor. | Head and back bruised by a fall of rock. Leg fractured by being struck by a loaded car. Burned by an explosion of gas, and fractured and body cut by a premature lidst. Injured on head by a piece of coal falling burner. | nown sum. Burned on hands, face and back by an explosion of gas. Leg and one rib fractured by a fall of rock. Burned on face and hands by explosion of gas. Fractured skull and nose by being kicked | by mule. Hip dishereted hy a fall of rock. Skull fractured by a fall of rock. Leg fractured: squeezed between derailed car and rib. Jaw and arm fractured by fall of rock while resetting timber. |
|--|--|---|--|---|---|--|---|
| | | ٠ = | | Luzerne, | | | ٠ |
| Buttenwood, | Kingston No. 2, Wanimie, Woodward, Plymouth No. 3, Plymouth No. 2, Kingston No. 2, Woodward, | Kingston No. 3. West End. Buttonwood. West End. Wanimic. Wanimic. | West End, Plymouth No. 2 | Beston, Plymouth No. 2 | Fingston No. 3 West End. Nottingham, Paurish. Woodward. | Lance. Parrish, Lance, West End. | Kingston No. 3. Plymouth No. 4. Lance. |
| × × × | N.Y. KKKKYK | wk wkke | MM M | M M M | M.S. M. S. | N W W W | |
| Miner, 28 Laborer, 32 | Miner, 31 Asst. driver, 16 Miner, 28 Laborer, 34 Miner, 61 Driver, 17 Laborer, 16 | Miner. 45 Laborer, 55 Laborer. 19 Runner, 29 Driver, 17 Locu, engineer, 25 Doorboy, 17 | Miner, 23 Engineer, 32 Miner, 45 | Laborer, 40 Miner, 3) Fan runner, 46 | Laborer, 45 Laborer, 28 Laborer, 39 Miner, 32 Doorboy, 16 | Miner, 36 Laborer, 40 Miner, 45 Driver, 21 | |
| Austrian, | Lithuanian | Irish German German Mussian American Polish American | Polish American Slavenian | Polish Lithuanian | Russian Polish Lithuanian Russian | Lathuanian Russian | |
| John Shultus, | John Bossinavage. Walter fuscorlski. William Laughlin. John Vasski. James Hicks. John Dugewage. | Dennis McCarthy, Anthony Kaab, John Gruneavitch, Hiram Staties, George Kinock, Garthell Pursens, John J. Wilson, | Joseph Melsp Kl | Michael Richo, Anthony Benawich, Most R ed | Henry Linden, Michael Kestvage, Pelix Belafski, Valentine Trebilski, John Liwellyn, | Joseph Powosok, Joseph Redaka, Stephen Pubish, Shas Reider. | John Schmidt, Charles Leogard, Edward Strock, Carl Filla, |
| 8 8 8 | 8822541-7 | <u> </u> | 2122 22 | <u>1</u> 2 1 | 65 88 E | ₹ 81 83 83 | 815 ° ° |
| March | April | May | | June | July | | Aug. |

TABLE 5.—Continued

| | Nature and Cause of Accident in Brief | Right arm fractured while trying to | sprag a car. Two ribs fractured by derailed cars | knocking nim against a prop. Leg fractured; squeezed between mule and | Compound fracture of right leg by a fall | of rock. Body lecerated by a fall of top rock. Three ribs fractured by a fall of top rock. Leg fractured by car running against him. | Leg fractured by a prop falling on him. Two ribs fractured by being struck by | With rope, Outside: | Right gour. Right leg fractured between empty cars. Frontal bone fractured between car and | Leg fractured and heel crushed by a fall | Skull fractured between mules and loaded | Arm Fractured by cars. Leg fractured. Fell while carrying a | prop. Leg fractured by a fall of top coal. Hip fractured between car and rib. Leg fractured by falling off a trestle. | Untside. Lieg fractured by motor running against | Hips fractured by kick of a mule. Three ribs fractured and lung punctured by flying coal from premature blast. |
|--------------------|---------------------------------------|-------------------------------------|---|--|--|---|---|---------------------|--|--|--|--|---|---|--|
| • | County | | | | | | | | Luzerne, | | | | | | |
| TABLE 3:—Continued | Name of Mine | Plymouth No. 3, | Wanimie, | West End, | Boston, | Boston, Boston, West End, | Dodsen, | Chauncey | Woodward, | Woodward, | Woodward, | West End, | Kingston No. 3 Parrish, | West End, | Ruttonwood |
| 5 | Married or single | υż | M. | ú | M. | ZZ.v. | M.S. | M. | N. K. | vi | vi | zizi | N W K | vi. | MM |
| TABLE | Occupation | Doorboy, 16 | Footman, 27 | Doorboy, 18 | Laborer, 40 | Miner, 27 Miner, 42 Slater, 15 | Laborer, 22 Engineer, 34 | Miner, 47 | Dumpman, 37 Driver, 19 | Laborer, 22 | Driver, 20 | Runner, 32 Laborer, 30 | Miner. 45 Laborer, 22 Slater, 14 | Motorman, 32 | Barn man, 39 Miner, 39 |
| | Vatlenslity | American, | Polish | Pollsh, | Polish, | American, Slavonian, Polish, | Polish | P. lish, | Shavonian | Polish | Polish, | American, Russian, | Slavonian. English | American | German., Polish, |
| | Name of Person | John McNelis, | Anthony Cominski, | Michael Kepton, | Joseph Wilehonoski, | John Lloyd. Stephen Forack, Andrew Moroski, | Martin Jacob, | John Pincofski, | John Abahazy | Isador Terkofski, | Juseph Bittner, | Silas Reider, George Bosser, | Andrew Petraulic, Frank Rowe, Themas Corbin, | William Wolfe, | Andrew Andrescovitch. Alexander Perkowski |
| | insblook to shell | Aug. 17 | 19 | 61 | 31 | Sept. 14 14 16 | 23 | S. | 30 Oct. 13 | 55 | 14 | 51 c? | Nov. 15 | Dec. 20 | \$ L- |

FATAL ACCIDENTS

By Falls of Coal, State and Roof

Plymouth No. 2, January 18, John Burke, miner, was killed instantly. He had fired three holes in the top rock in order to make room for a set of timber, and while barring the top rock down a piece fell on him.

Kingston No. 3 shaft, February 7, Stephen Williams, miner, was instantly killed. He had just fired a blast in the coal, and returned to the face of his place a short time after firing to see what was the result of the blast, when a piece of rock fell on him.

Dodson colliery, March 28, Jacob Mickolay, miner, was fatally injured. He permitted a dangerous piece of top slate to hang over where he was working. He knew of his danger, but was waiting for a more favorable time to bar it down. Before he had a chance to

do this it fell on him. He died on the way to the hospital.

West End, March 29, John Baluka, miner, and Frank Gonswolk, laborer, were instantly killed. The miner had just fired a blast in the coal and he and his two laborers pushed a car to the face to load. One of the laborers said the rock was working, and considering it dangerous, he warned the others to retreat to a place of safety. The miner and his other laborer stopped to listen, when a fall of rock occurred, killing them both instantly.

Plymouth No. 2 shaft, Red Ash vein, No. 7 slope, 2d air-way, April 27, Andrew Kolinauskas, miner, was fatally injured. He had just entered the face of his place after firing a blast, and was engaged in helping his laborer to load a car when a piece of top coal fell, strik

ing him on the head. He died in the hospital April 30.

Parrish, April 26, Stanley Paceka, laborer, was instantly killed. He, in company with his miner, had been barring down top rock after a blast, and had started in toward the face of the gangway, when a

piece of rock fell on him. The fall was due to a slip.

West End, May 9, Stanley Magrorage, driver, was instantly killed. He was warned not to drive on the main slope, and went around another way. The way he drove intersected the main slope at the place where he was warned it was dangerous. Upon his arrival at the intersection the timbers were breaking, permitting a fall of rock to occur.

Red Ash vein, Reynolds colliery, May 24, John Mushill, laborer, was instantly killed. He was loading a car when suddenly a rush of coal came down from the heavy pitch above him, and knocked down several sets of timbers. He was buried under a mass of coal.

Woodward, June 9, George Bessick, miner, working in No. 1 slope, Red Ash vein, was fatally injured. While standing at the end of a car in the face of the gangway. A portion of the top coal fell on

him. Died same day.

Dodson colliery, July 25, Felix Motolevick, laborer, was fatally injured in the Bennett vein, No. 1 plane, East Side outlet. He, in company with others, was lagging a set of timbers, when a large piece of coal fell from the roof, crashed through the set of timbers and caught him. He died in the hospital the same day.

Lance, May 12, Thomas Bardulis, miner, Five-foot vein, was instantly killed. He had fired a blast in the top rock, and after pro-

18-22-1905

ceeding to the face he discovered that the blast did not do its work. He made an effort to bar the rock down, but failed, and after resuming work it suddenly fell on him.

Plymouth No. 5, June 12, Andrew Metallick, miner, bottom split of Red Ash vein, was fatally injured. He was engaged in standing a prop assisted by the timbermen, when a small piece of rock fell from the roof on him. He died at his home June 14.

Lance No. 11, July 10, Joseph Sobleski, miner, Five-foot vein to West 15 plane, was instantly killed. While in the act of drilling a hole in the face of his chamber a large piece of coal fell on him.

Parrish, July 44, Joseph Movankevicz, miner, No. 6 West Bennett vein, was instantly killed. He had fired a blast of coal, and had proceeded to the face of his chamber, when a piece of rock fell on him.

West End, July 20, Frank Deitrick, miner, Ross vein, was fatally injured. He had been engaged in barring down top rock. A small triangular piece projected from the roof and thinking it was not securely fastened, he instructed his laborer not to go under it; but while making preparations to do other work about the face of his place, he went under it for one of his tools, when suddenly it fell on him. He died the same day.

Woodward, August 26, John Armuski, laborer, was instantly killed. His miner had tried to bar down some top coal but failed. He then decided to drill a hole back of it thinking that would bring it down. Before firing, he was engaged in loading a car and was warned to stay away from under the treacherous piece but said he considered it safe. While working under it, it fell on him,

Gaylord, August 31, Timothy Conahan, miner, was fatally injured. He was starting a hole in face of his chamber in the Cooper vein, when a large piece of coal fell from the roof on him. Died the same

day at the Mercy Hospital.

Flymouth No. 3 shaft, Hillman vein, September 26, William Schultz, miner, was fatally injured. After firing a blast he proceeded to the face of his chamber, and while working out some loose coal in the face, a piece of top coal fell on him. Died October 2, at Mercy Hospital.

Nottingham, October 16, Joseph Levan, laborer, was instantly killed. He was working in the second gangway, No. 5 slope, Red Ash vein, and while in the act of loading a car in the face of the gangway,

a piece of coal from the rib fell on him.

Woodward, November 17, Peter Stuvoski, laborer, was instantly killed. While engaged in loading a car in air-way, Baltimore vein,

a piece of coal chipped off the rib, striking him on the head.

Buttonwood, August 9, Constant Semanski, miner, Kidney vein, was instantly killed. He went to the next chamber to help another miner reset timber that had been dislocated by a blast, and while doing this work a piece of rock fell on him.

Plymouth No. 2, October 5, Frank Sigler, miner, Bennett vein, No. 13 plane, was fatally injured. He was picking a hole in a bad piece of top rock, and while so doing a small piece fell on him, fracturing

his leg. He died at the City Hospital October 8.

Dodson, November 14, William Wazdopki, miner, was instantly killed. He was in the act of blasting down the main bench in West Side, Red Ash vein, when a fall of coal from the 10-inch seam came down on him,

Plymouth, No. 5, November 27, Martin Morris, miner, 5th way, No. 5 plane, Top split, Red Ash vein, was fatally injured. He was engaged in doing some work in the face of the gangway, when a fall of top rock struck him. He died the same day at the City Hospital.

Boston, December 18, Patrick Morahan, miner, Bennett vein, was instantly killed. He had just fired two holes in succession and immediately proceeded to the face of his chamber, when a fall of rock struck him. He permitted the rock to hang back a distance, and

had been repeatedly warned of his danger.

Cars

Nottingham, May 2, Stanley Behis, miner, 14 West gangway, Ross vein, was fatally injured. He came out from the face of his place to assist the slope foot-men, and gave the signal for the trip to descend. He then ran towards the door, when the coupling broke, permitting the head car to run away, catching him. He died shortly after being taken home.

Parrish, May 12, John Bombar, laborer, was instantly killed in the Bennett slope. He in company with his miner and two others, went in an empty trip. Bombar was sitting on the door rod of the car making a cigarette, when through some cause he fell backward and

the trip passed over him.

Avondale, June 22, Charles Hatten, helper, Red Ash vein, was fatally injured. He was tending the head of No. 1 slope, when the head car became detailed and caught him between the car and tim-

bers. He died the same day.

Wanimie, December 9, Charles O'Brien, road cleaner, was fatally injured. He was standing on the side of the gangway, when the driver passed with his trip, and was resting on his shovel, when suddenly it slipped out of his hand, and fell towards the cars. He made an effort to recover it by placing his foot forward, and his foot became fastened under the car. He was dragged some distance, and died same day at Mercy Hospital.

Reynolds, December 29, John Oruchok, laborer, Seven plane, Ross vein, was fatally injured. An empty car became detailed in the face of the gangway and squeezed the victim between the car and leg of a set of timber. He did not consider the accident very serious, and walked most of the distance to his home. He died December 30.

Blasts

Plymouth No. 2 colliery, September 7, Five foot vein, No. 8 plane, John Fisher, miner, was fatally injured by being struck with flying coal from a premature blast. The shot exploded while he stood in the face of his chamber. He died September 17, at Mercy Hospital.

Plymouth No. 2, November 11, Top split, Red Ash vein, Michael Muisel, laborer, was instantly killed. He was walking toward the face of the back switch air-way, when a blast was fired in the cross-cut outside. The shot broke through and he was struck by flying coal.

Parrish, December 18, Bennett vein, No. 3 slope, John Thomas, miner, was instantly killed. He was in the act of firing a blast, and had placed the squib in the hole, and instructed his son to light the

match. The shot exploded prematurely, before he had reached a place of safety, and a piece of flying coal struck him on the head.

Gas

West End, April 3, Red Ash vein, Frank Blasi, miner, was fatally injured by explosion of gas. He was engaged in driving cross-cut, and after firing a shot he went back to examine the face of the cross-cut with a naked light, igniting a small portion of gas. He had been repeatedly warned to use his safety lamp, but paid no heed to the warning. He died April 13, at the hospital.

Lance No. 11, July 18, Ross vein, Adam Raklevicz, laborer, was fatally burned by gas. He was assisting his miner to place a loaded car on the track at foot of the chamber; where there was a feeder of gas. It ignited from his open light. He had been warned to use a safety lamp. He died at Mercy Hospital, July 20.

Falling Down Shafts

Woodward, August 18, William Newberry, foot-man, was instantly killed. He went from Red Ash vein to Cooper vein to hoist coal; on the cage with him was Evan Pugh, a driver who was being sent to the Hillman vein. Pugh got off at the Cooper vein, and Newberry threw in the fans, and started to the Hillman vein with a boy. After the boy had returned to this vein, Newberry signalled the engineer to lower the cage to the Red Ash vein. As soon as he commenced to descend, it is evident he became aware of his error. The boy at the Hillman vein heard him shout frantically "Throw out the fans, MacCole!" Neal MacCole and the two other foot-men, that were at the Cooper vein, heard him shout, but did not catch his meaning for a time. When they understood him, MacCole rushed for the fau lever, and he had hardly grasped it when the cage struck the fans, precipitating Newberry down the shaft. William White, fire boss, and George Daly, engineer, found him in the sump at the Red Ash vein. It is evident that he made a mistake by throwing the fans in, when he took the other foot-men up to the Cooper vein. If the fans had been left out until his return from the Hillman, this accident could have been avoided. It developed at the inquest, both by the head tender, and the engineer, that when he gave the signal to descend, it was to the Red Ash vein, and not to the Cooper vein.

Miscellaneous

Inside.—West End, August 4, Red Ash vein, Charles Swithers, miner, was fatally injured. He was working at the face of his place, taking down top coal, and when the coal fell it struck the rail on which he was standing, throwing him down the chute. He died same day at the City Hospital.

By Machinery, Outside

Lance, No. 11, January 3, Michael Chelus, slater, was fatally injured. He was found several feet away from his place of work at

the screen hopper, with his clothing caught in the shafting that runs the conveyor. He died at the Mercy Hospital the same day.

North American Coal Company, Plymouth washery, August 29, Anthony Britrashan, engineer, was fatally injured. His arm was caught on a shaft of an outside bank conveyor engine. He could have saved himself if he had called to those who were close by, but instead he endeavored to extricate himself. He died the same day at the Mercy Hospital.

Nottingham, October 30, Frank Dopcow, chipper, was fatally injured. The signal had been given and the engineer started the breaker again. While it was in motion Dopcow started to go to the Chestnut rolls. He was warned to remain away on account of the extreme danger, but did not heed the warning. He started into the rolls, thinking they were blocked. His leg was so badly crushed that he died next day in the City Hospital.

Boston, December 2, Benjamin Comsick, slater, was instantly killed. It is supposed that the accident was caused by the belt wheel of the wing screens, as he was found under the wheel a distance of about seven feet below. No one saw the accident.

Plymouth No. 4, December 9, Jacob Stubblevine, carpenter, was fatally injured. He was working close by a conveyor line which was run occasionally during the day in conveying small coal to the boiler room. Through some cause unknown, his clothes became caught in the sprocket wheel and he was drawn underneath. He died December 14 at the hospital.

Miscellaneous, Outside

West End, June 29, Peter Webber, laborer, was fatally injured. He went up with the breaker foreman to see if the coal was blocked on the chute runway. At the same time a locomotive passed under the breaker, and knocked out the timber which supported the chute, permitting that portion of the floor which Webber stood upon to fall to the ground. He died on the way to the hospital.

July 7, Plymouth No. 2, Andrew Miller, foot-man, was fatally injured. He was engaged in taking down supplies, and while the time the material was being unloaded at the bottom of the shaft, he went into the breaker engine house to assist Anthony Linaviski to get the breaker engine off the centre, using a rail to do the work. It appears that when the engine was started one end of the lever caught in the fly wheel, allowing the other end to fly up. It struck Miller on the head and fractured the right side of his skull. He died July 8 at the City Hospital.

Nottingham, July 31, Paul Shurack, laborer, was fatally injured. They were pulling the old breaker down, and in falling it pulled the rope from the crab, permitting the lever to fly up, striking Shurack on the head. He was taken to Mercy Hospital, where he died Aug ust 9.

Boston, September 21, Stephen Lynch, slater, was fatally injured. He with other boys was playing on the roof of the breaker, and in some manner fell off the roof to the ground, crushing the back of his head. He died the same day at City Hospital.

Nottingham, November 24, Michael Androski, dumper, was instantly killed. He was taking tickets from the mine cars at the head

of the shaft, in the breaker, after the car was dumped, he gave the signal to the engineer to lower. It was presumed that after he had given the signal for the cage to descend that he made an effort to take the ticket off the car, and in so doing lost his footing, and was precipitated to the bottom of the shaft.

CONDITION OF COLLIERIES

LEHIGH AND WILKES-BARRE COAL COMPANY

Nottingham colliery, Reynolds colliery, Wanimie No. 18 and Wanimie No. 19.—Condition good as to safety, drainage and ventilation.

DELAWARE AND HUDSON COMPANY

Plymouth No. 2, Plymouth No. 3, Plymouth No. 4, Plymouth No. 5, and Boston,—Condition good as to safety, drainage and ventilation.

WEST END COAL COMPANY

West End in good condition; drainage good; a very notable improvement in regard to ventilation, especially in outside drifts.

Ross vein in long drift, is only in fair condition in regard to ventilation, but expect to have this vein well ventilated in short time.

PLYMOUTH COAL COMPANY

Dodson.—Condition good as to safety, drainage and ventilation.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Woodward and Avondale.—Condition good as to safety, drainage and ventilation.

PARRISH COAL COMPANY

Parrish and Buttonwood.—Condition good as to safety, drainage and ventilation.

KINGSTON COAL COMPANY

Kingston No. 2, Kingston No. 3.—Condition safe, drainage good, ventilation good; special mention should be made as to the good ventilation now existing in the orchard vein, since the installation of a new fan,

GEORGE F. LEE COAL COMPANY

Chauncey.—In safe condition, drainage good, ventilation fair.

IMPROVEMENTS

LEHIGH AND WILKES-BARRE COAL COMPANY

Lance No. 11 Colliery

Outside.—Supply store, brick oil house, re-inforced concrete retaining wall, 500 H. P. water tube boilers.

Nottingham No. 15 Colliery

Outside.—Complete new breaker and surface improvements, 500 H. P. water tube boilers.

Inside.—Two bore holes from surface for steam pipes, two car hoists at foot of shaft, two compressed air motors for haulage.

Wanimie No. 18 Colliery

Inside.—No. 7 rock slope Baltimore to Ross, No. 12 tunnel extended, Baltimore to Cooper.

DELAWARE AND HUDSON COMPANY

Plymouth No. 2

No. 10 plane, Top split Red Ash, extended 800 feet.

No. 6 slope, Stanton, extended 300 feet.

No. 8 slope, Hillman vein, extended 150 feet.

No. 12 Rock plane, Stanton to Kidney vein, driven 330 feet.

Eight inch rope hole for No. 7 Stanton vein plane, 246 feet deep, and 12½ inch x 15 inch engines installed.

Eight inch culm hole and crusher plant for flushing refuse into the mines.

Plymouth No. 3

Crusher plant installed, to break up refuse from breaker to be flushed into the mines.

Plymouth No. 4

No. 10 plane, Ross vein, extended 150 feet, and 10 inch x 12 inch engines installed for operation of same,

No. 9 plane, Bennett vein, driven through old workings 600 feet, and pair of 10 inch x 13 inch engines installed for operation of same. Crusher plant installed for flushing purposes.

Boston

No. 12 Rock plane, from Upper to Lower Ross, 250 feet.

No. 9 plane, Top split extended 315 feet.

No. 10 plane, Top split extended 100 feet.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Avondale

Extensive breaker improvements made at this colliery. When repair work was begun on this structure it almost became necessary to rebuild the entire building, costing a large amount of money, with the result that the company has what might be considered a modern breaker on a small scale.

The work of changing the location of steam boilers from the Ross shaft to the main shaft will be completed early during the year 1906.

Connection is being made with the colliery to the Nanticoke Power's Station, which will generate electric current for operating locomotives and hoists in this mine.

A 7x12 rock tunnel connecting Red Ash and Ross vein, 743 feet long on a 5 per cent, grade has been completed.

Woodward

Notwithstanding the fact that this colliery was operated almost continually during the year, considerable improvements were made, consisting of the following:

Installing a 600 H. P. Cross compound engine and generator to furnish electric power for locomotives and hoists. Also new electrically driven centrifugal pump to furnish water for shakers, screens, etc., and one rope driven dust fan. All of which have added to the efficiency of this breaker.

Inside improvements consists of driving two rock tunnels, one from Cooper vein to Lance vein, and one from Cooper vein to Cooper vein through fault.

The ventilation in this colliery has been improved by the erection of six concrete brick and iron air bridges.

The condition of the haulage roads and return air-ways have been improved by cleaning up and enlarging.

Report of Jersey Fire

I am pleased to be able to report that this most stubborn and serious mine fire, if not entirely extinguished, has been so surrounded by incombustible material that it will be practically impossible for it to spread into any other part of the adjacent old workings.

This fire was discovered on May 18, 1901. The origin has always been a mystery. It has cost the company a tremendous amount of money. The officials and workmen engaged at this work have also suffered a great many trying ordeals, and are very well pleased with the conditions existing at the present time, as the work of fighting a fire of the magnitude of this one in old abandoned workings, where no system of ventilation could be adopted or applied, is a problem that taxes the ability of the most competent mining men.

The most important question in fighting a mine fire is to produce a sufficient quantity of air to dilute and render harmless noxious and dangerous gases, so as to enable the mine workers to attack their most insidious enemy.

A great deal of credit is due the men in charge of this work and those who have worked with them.

WEST END COAL COMPANY

West End

One 110 and one 250 K. W. electric generator installed in concrete power house. One 7 ton electric locomotive, No. 1 Lee, and one 7 ton electric locomotive, R. A. Split. One 4 stage Worthington turbine pump, electrically driven, No. 1 Lee, one 5 stage Worthington pump, electrically driven, Lee shaft, one 15 foot Guibal fan, No. 1 Lee, electrically driven, and two Flory electric hoists. Three 300, H. P. Maxim water tube boilers, in concrete boiler house; 54 steel mine cars.

Ninth District

LUZERNE AND CARBON COUNTIES

Hazleton, Pa., February 21, 1906.

Hon, James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my annual report as Inspector of Mines for the Ninth Anthracite District for the year

ending December 31, 1905.

In addition to the usual tables, it contains the report of the arbitrators on the dam placed between Cranberry colliery of A. Pardee and Company and the Harwood colliery of C. Pardee and Company in the Parlor vein. The full report, as well as their decision, will be found embodied herein.

Respectfully submitted,
DAVID J. RODERICK,
Inspector.

SUMMARY OF STATISTICS

| Number of collieries, | 30 |
|--|-----------|
| Number of mines, | 110 |
| Number of mines in operation, | 109 |
| Number of tons of coal shipped to market, | 6,081,321 |
| Number of tons used at mines for steam and heat, | 831,650 |
| Number of tons sold to local trade and used by employes,. | 155,364 |
| Number of tons produced, | 7,068,335 |
| Number of persons employed inside, | 9,467 |
| Number of persons employed outside, | 5,751 |
| Number of fatal accidents inside of mines, | 36 |
| Number of fatal accidents outside, | 13 |
| Number of non-fatal accidents inside of mines, | 97 |
| Number of non-fatal accidents outside, | 34 |
| Number of tons of coal produced per fatal accident inside, | 196,342 |
| Number of persons employed per fatal accident inside, | 263 |
| Number of persons employed per fatal accident outside, | 442 |
| Number of persons employed per non-fatal accident inside, | 98 |
| Number of persons employed per non-fatal accident out- | |
| side, | 169 |
| Number of wives made widows, | 29 |
| Number of children orphaned, | 76 |
| Number of steam locomotives used inside of mines, | 18 |
| Number of steam locomotives used outside, | 102 |
| Number of compressed air locomotives used inside, | 14 |
| Number of electric motors used inside, | 3 |
| Number of fans in use, | 58 |
| Number of furnaces in use, | 1 |
| Number of gaseous mines in operation, | 30 |
| Number of non-gaseous mines in operation, | 79 |
| Number of old mines abandoned, | 1 |

TABLE A

| PRODUCTION OF COAL | 9 |
|---|---|
| Names of Operators | Tons |
| Lehigh Coal and Navigation Company, G. B. Markle and Company, Coxe Brothers and Company, Incorporated, Lehigh Valley Coal Company, A. Pardee and Company, Pardee Brothers and Company, Estate A. S. Van Wickle, Calvin Pardee and Company, Upper Lehigh Coal Company, C. M. Dodson and Company, John S. Wentz and Company, Hazle Mountain Coal Company, M. S. Kemmerer and Company, Pond Creek Coal Company, Black Creek Coal Company, Stauffer and Rowe, Hacklebernie Coal Company, Thomas R. Reese and Son, | 1,404,799 1,074,898 1,007,577 950,825 511,989 508,124 341,179 334,339 280,292 196,653 156,372 108,309 63,997 49,030 44,806 15,933 12,160 7,065 |
| Total, | 7,068,335 |
| Production by Counties | |
| Luzerne, | 4,857,258 2,211,077 |
| Total, | 7,068,335 |

per accident; number of coal produced inside and outside of mines; number of tons of persons employed; number employed per accident TABLE B.-Fatal and non-fatal accidents inside and outside of

2012121212 :83 Number of employes outside per non-fatal accident **各国に国民な国際におお出当時**8 83 Number of employes inside per non-fatal accident 412 361 352 457 457 215 Number of employes outside per fatal accident 22.0 22.0 23.0 34.0 35.0 35.0 : 3 per fatal accident Number of employes inside 218 Total number of employes 8,88428884584429 Number of employes outside 19: Number of employes inside 67 Tons of coal produced per non-tatal accident inside 214,979 214,979 335,859 190,165 102,338 254,061 196,342 Tons of cost produced fatal accident inside 167. Accidents 1212222222 IntoT 004-1-000 34 Non-Fatal Outside apisul 6. IstoT Accidents abisinO Fatal apisul district, Operators Coal and Navigation Co., Lohigh Valley Coal Co., Inc., ... for Reese and Son, S. Van Wirkle, averages Estate A. S. Van Wirkle Cavin Pardee and Co., C. M. Probsan and Co., John S. Wentz and Co., Hazle Mountain Coal Co., M. S. Femmerer and Co., M. S. Femmerer and Co., Pond Creek Coal Co., A. Pardee and Co., Names of Markle and and Totals Thomas R. Miscellaneou rehigh

TABLE C.-Classification of Fatal Accidents Inside and Outside of Mines

| | | | | | | | M | lontl | ns | | | | | |
|---|---------|----------|----------------------|-------|-----|------|------|---------------------------|-------------------------------|---------|----------|------------|--|---|
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Explosions of powder and dynamite. Premature blasts, Falling into shafts, Falling into slopes, etc., Miscellaneous, Totals, | 3 | 1 | 1 1 3 6 | | | | | 1 1 4 == | 1 | 1 2 2 | | 1 | 9 9 2 3 3 2 1 1 4 2 36 | 25.00 25.00 5.56 8.33 8.33 5.56 2.78 2.78 11.11 5.55 |
| Causes of Accidents Outside Cars, Machinery, Suffocation in chutes, etc., Miscellaneous, Totals, Grand totals inside and outside, | 1 1 | | 1 | 1 1 | | | | 1 1 - - 6 | 2 - 2 - 5 | 1 1 3 | | 11 - 2 - 4 | 1 3 13 | 30.77 38.46 7.69 23.08 |

TABLE D.-Classification of Non-fatal Accidents Inside and Outside of Mines

| | | | | | | | М | onth | ıs | | | | | |
|---|---------|----------|-------|-------|-----|------|--------------------------------|-------------------------------------|--------------------------|--|----------------------|----------|---|--|
| Causes of Accidents Inside | January | February | March | April | Мау | June | July | August | September | October | November | December | Totals | Percentages |
| Falls of coal, Falls of slate, Mine cars, Explosions of gas and dust, Explosions of powder and dynamite, Premature blasts, Falling into slopes, etc., Miscellaneous, Totals, | 1 | 2 | 1 1 | 2 | 1 | | 1 3 2 1 1 1 | 3 4 1 4 2 14 | 1 4 1 7 | 1 2 1 3 1 2 1 1 | 2 1 3 1 | 3 | 27 17 10 10 14 1 10 97 | 27.83 17.53 10.31 8.25 10.31 14.43 1.03 10.31 |
| Causes of Accidents Outside Cars, Machinery, Miscellaneous, | 2 | | 3 | 2 | | 1 | | 1 | 1 1 | 1 | 3 2 | 2 | 16 6 12 | 47.06 17.65 35.29 |
| Totals, | 4 | | 3 | 3 | | 1 | 3 | 2 | 2 | 2 | 5 | 3 | 31 | 100 |
| Grand totals inside and outside, | 8 | 17 | 10 | 12 | 6 | 7 | 12 | 16 | 9 | 13 | 12 | 9 | 131 | |

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

| | | | | | | M | ontl | ns | | | | | |
|--|---------|---|-------|---------|---------------------------------------|----------------|-----------------|---------------------------|-----------|------------------|----------|----------------------|---|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Inside Mine foremen, Miners, Miners' laborers, Doorboys and helpers, Pumpmen, Company men, All other employes, | 1 | 1 | 1 4 1 | 1 | 1 1 1 = \$\vert{2}\$ | 1 1 | 2 1 1 | 3 1 4 == | | 1 1 - 2 -= | | 2 2 == | 1 23 7 2 1 1 1 1 36 |
| Outside Engineers and firemen, | 1 - 1 | 1 | 2 | 1 2 - 1 | 1 | | | 1 1 2 6 | 1 1 2 5 | 1 1 -3 | | $\frac{2}{2}$ | 2 3 8 -13 -49 |

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

| Miners. I Miners laborers. I Drivers and rumers. Doorhoys and hulpers. All other employes, | 7 | February | March | April | May | June | July | August | September | October | November | December | Totals |
|--|---|------------|-------|-------|-------|-------|----------------------|--------|------------------|---------|----------|----------|---|
| Miners, 4 Miners laborers, 1 Drivers and runners, 1 Doorloys and helpers, 2 All other employes, 4 Totals, 4 Outside Foremen, 1 Blacksmiths and carpenters, 1 | | | | | | | | | | | | | |
| Foremen, Blacksmiths and carpenters, | 1 | 1 1 | 6 1 | 9 | 1 1 1 | 1 1 6 | 6 1 1 1 1 | 11 2 1 | 2 5 | 9 1 1 | 1 7 | 5 1 | 71 18 5 2 1 17 |
| Blatepickers (boys), Bookkeepers and clarks, All other employes, Totals, | | | 1 | 2 1 | | 1 | 1 i i i | 1 2 | 1 1 1 2 | 1 1 2 | 1 2 2 | 3 | 1 2 2 4 2 2 3 2 3 |

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

| | - | | | | | М | ontl | ns | | | | | |
|--|---------|----------|------------------------------------|---|------------------------|-----------|-------|--------|-----------|---------|----------|----------|--------|
| | January | February | March | Arril | May | June | July | August | September | October | November | December | Totals |
| American, English, Welsh, German, Polish, Hungarian, Italian, Slavonian, Russian, Greek, Tyrolean, | 2 | 1 1 2 | 2 1 1 3 1 8 | 1 | 1 1 1 1 -1 | · · · · · | 1 2 1 | | | 2 | | 1 1 | 1 1 |

TABLE H.-Nationality of Persons Injured Inside and Outside of Mines

| | | | | | | M | ontl | is | | | | | |
|--|---------------|----------|---------------|-----------------------|---------|----------------|------|-----------------------|-----------|--------------------------------|---------------------------|-------------|---------------------------------------|
| · | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| American, English, Welsh, Irish, German, Pelish, Hungarian, Italian, Slavonian, Lithuanian, Austrian, Russian, Tyrolean, | 1 1 1 2 1 1 1 | 1 | 1 2 2 2 1 1 1 | 1 3 2 1 1 | 1 1 2 1 | 1 3 | 1 3 | 1 2 1 4 3 | 2 1 2 2 | 2 1 1 1 1 4 | 2 1 2 .3 | 2 1 1 1 2 2 | 25 20 26 26 16 7 27 |

TABLE 1.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each person her minute

| Average number of cubic feet per minute provided for cach person | 25 25 25 25 25 25 25 25 25 25 25 25 25 2 | 11 |
|--|--|----------|
| Number of persons employed shirt | 25 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | 1 |
| Number of cubic feet per minute passing out at out- let | 13, 13, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10 | 17, 10 |
| Total quantity of a'r per fin mi subitation all the splits in subic feet | 12.00 | TI. Tana |
| tis to test olders to reduce X and principles of the second of the secon | 25 25 25 25 25 25 25 25 25 25 25 25 25 2 | |
| Zundario stilles of admuZ | 10 00 01 00 01 14 01 14 0 0 01 15 4 00 4 00 | 1 |
| ni stad obanul lo serv | | |
| Lower used | Steam, Steam, | , |
| that to smax | Guibal, | |
| ni b q feveb sausz voteni sedoni | 61-95109 in incoming | - |
| Number of revolutions, per minute | 838255 8 34666 68 | |
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| beet ni sebald to dibiW | \(\alpha\) (1.5 \(\alpha\) (| |
| tool ai and to retound | 267227 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | |
| refullinay to badast. | Fan. Fan. Fan. Fan. Fan. Fan. Natural. Fan. Natural. Fan. Fan. Fan. Fan. Fan. Fan. Fan. | |
| smossip-non to sno sep | Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Non-gas, Non-gas, Non-gas, Non-gas, Non-gas, Non-gas, Gaseous, Gaseous, Gaseous, Gaseous, Careeus, Gaseous, Non-gas, Non | |
| guinago lo latid | Shart. Trombel. Silope. Trumbel. Trumbe | |
| Names of Operators and | Lehich Cost and Navigations of the Cost and Cost | |
| ž | | |

"Robbing. No air measurement taken

| Chicago No. 2 Sipp. Chic | | | | | | | | | | | | | | |
|--|--|---|--------------------------------------|----------------------------------|--|----------|--|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|---|
| Co. 190. | 591 946 1,000 667 | 690 436 222 224 450 | 498 510 687 | 293 | 255 255 255 255 255 255 255 255 255 255 | 588 | 611 538 409 833 244 375 481 | 466 | 243 | | | | | |
| Style Converse Pan Style Converse Pan Style Converse Pan Style Converse Con | 71 146 6 15 | 20 20 20 20 20 20 20 20 20 20 20 20 20 2 | 21888 | 141 | 319 319 579 | 9. | 139 130 110 6 6 9 6 40 52 | 30 | 66 | | | | | |
| Column Step Column Step Column Step Column Step Column Step Column Step Column Step Step Column Step | 42,000 147,000 6,000 30,000 | 34, 200 25, 000 18, 700 6, 660 35, 130 | 86,310 88,310 88,310 | 103, 555 103, 555 | 50, 300 61, 500 153, 400 38, 000 | 37,000 | 102, 500 87, 000 64, 000 5, 000 22, 000 37, 000 | 19,000 | 69. roo | | | | | |
| No. 2, N | 42, c00 138, 000 6, 000 10, 000 | 20,000 19,600 14,800 11,660 | 4, 698 42, 360 42, 600 | 41,480 | 33, 150 45, 600 76, 000 17, 500 | 21,800 | 85,000 100,000 122,000 13,000 13,000 | 14,000 | 24,000 | | | | | |
| No. 4, The Co., The | 46,000 145,138 6,010 30,000 | 24,000 24,000 117,500 35,010 | 84,810 84,810 84,810 38,900 | 101,265 101,265 | 47, 250 52, 300 127, 200 40, 000 | 36, 500 | 100,340 85,200 60,000 5,000 21,000 36,400 | 18,500 | 68, 975 | | | | | |
| Non-gas, Natural, Non-gas, Natural, Non-gas, Natural, Non-gas, Natural, Non-gas, Natural, Non-gas, Natural, Non-gas, Natural, Non-gas, Natural, Non-gas, Natural, Non-gas, Natural, Non-gas, Natural, Non-gas, Natural, Non-gas, Natural, Non-gas, Pan, Non-gas, Natural, Non-gas, | | m # a a a a | | * | | * | | | : cı * | * * | * * | * * | * * | |
| Slope, Non-gas, Pan, 20 6 5.6 6 6 Guibul, Steam, Slope, Gaseous, Pan, 20 6 5.6 8 96 Guibul, Steam, Slope, Non-gas, Natural, Slope, Non-gas, Natural, Slope, Non-gas, Pan, 20 6 5.6 8 65 Guibal, Steam, Slope, Non-gas, Pan, 20 6 5.6 8 65 Guibal, Steam, Slope, Non-gas, Pan, 20 6 5.6 8 99 Guibal, Steam, Slope, Non-gas, Pan, 20 6 5.6 8 99 Guibal, Steam, Slope, Non-gas, Pan, 20 6 5.6 8 99 Guibal, Steam, Slope, Non-gas, Pan, 20 6 5.6 8 99 Guibal, Steam, Slope, Gaseous, Pan, 20 6 5.6 8 99 Guibal, Steam, Slope, Gaseous, Pan, 14 4.9 4 6 6 9 Guibal, Steam, Slope, Gaseous, Pan, 14 4.9 4 6 6 9 Guibal, Steam, Slope, Gaseous, Pan, 14 4.9 4 6 6 9 Guibal, Steam, Slope, Gaseous, Pan, 14 4.9 4 6 6 9 Guibal, Steam, Slope, Gaseous, Pan, 14 4.9 4 6 6 9 Guibal, Steam, Slope, Gaseous, Pan, 14 4.9 4 6 6 9 Guibal, Steam, Slope, Gaseous, Pan, 16 4.6 4 8 9 9 Guibal, Steam, Slope, Gaseous, Pan, 16 4.6 4 8 9 9 Gaseous, Pan, 18 4.6 4 8 9 9 Gaseous, Pan, Pan, Pan, | - : : : : : : | | <u> </u> | | | | | | | | | | | |
| Coal Coal Coal Coal Coal Coal Coal Coal | | Steam, Steam, | Steam, Steam, Steam, | | Steam, | | Steam, | Steam, . | Steam. | | | | | |
| Non-gas | Guibal, Guibal, | Guibal, | : ' ' ' | | Guibal, | | Guibal, | Guibal, Guibal, | Guibal, | | | | | |
| No. 2, Non-gas Fan, 20 6 5.6 5.6 | | | | | | | عن <i>ن ن</i> نــــــــــــــــــــــــــــــــ | 6.6. | 1.3 | | | | | |
| Non-gas Pan 20 6 | | 229 | 92 | 09 | 35.35 | 00: | 588888 | 99 | 99 | | | | | |
| Non-gas | 9 | 12 IC | 0.4°.0 | 9910 | 4464 | 4 | ਚਾਰਾਰਾਰਾ ਚਾਰਾ | | | | | | | _ |
| Non-gas | | 910 | 6 5 6.10 | | | | 44.44.44.4 0.00.00.00.00.00.00.00.00.00.00.00.00.0 | 4.6 | 4.6 | | | | | |
| Non-gas Non-gas Sluppe Gaseous Sluppe Non-gas Non-gas Sluppe Non-gas Sluppe Non-gas Sluppe Non-gas Non-g | | ::::::::::::::::::::::::::::::::::::::: | 20 20 20 | | | ÷ : | | | - | | | | :: | |
| Slope Slop | Fan, Natural, Natural, Natural, | Natural, Natural, Natural, Natural, Fan, | Fan, Fan, | Fan, Fan, | Fan, Fan, Fan, Fan, | Natural, | Fan, Fan, Fan, Fan, Fan, | Fan, | Fan, | Natural, Natural, | Natural, Natural, | Natural, Natural, | Natural, Natural, | |
| No. 2, Sluppe, Slupp | Non-gas. Gaseous, Non-gas. Non-gas. | Non-gas. Non-gas. Non-gas. Non-gas. Non-gas. | Gaseous, Gaseous, Gaseous, | Gaseous, Non-gas. Non-gas. | Gaseous, Gaseous, Gaseous, | Non-gas. | Non-gas. Non-gas. Non-gas. Non-gas. Non-gas. Non-gas. | Non-gas. Gaseous, | Gaseous, Non-gas | Non-gas, | Non-gas, Non-gas, | Gaseous, Non-gas. | Non-gas. Non-gas. | |
| No. 2, No. 4, No. 11, No. 11, No. 11, No. 12, No. 2, No. 11, 13, 13, 10, 10, 10, North, South, South, South, Samin, as Basin, And No. 3, Ramin, No. 3, Ramin, No. 3, Ramin, No. 3, Ramin, No. 4, Ramin, No. 3, Ramin, No. 3, Ramin, No. 3, Ramin, No. 3, Ramin, No. 3, Ramin, No. 3, Ramin, No. 3, Ramin, No. 3, Ramin, No. 3, Ramin, No. 3, Ramin, No. 3, Ramin, No. 3, Ramin, No. 3, Ramin, No. 3, Ramin, No. 4, Ramin, No. 4, Ramin, No. 4, Ramin, No. 4, Ramin, No. 4, Ramin, No. 4, Ramin, No. 4, Ramin, No. 4, Ramin, No. 4, Ramin, No. 3, Ramin, No. 4, Ramin | | Slope, Slope, Slope, Slope, Slope, | Drift, Tunnel, | Slope, | | | | | | | Slope, | Slope, | Slope, | |
| | Stothers and Co., Inc. No. 1. No. 1. No. 1. No. 2. No. 2. No. 2. No. 2. No. 6. 6. No. 6. | | | | : ! ! ! | | | :: | | Orphans' Home, | West End No. 3, | 4: | :: | |

•Robbing. No air measurement taken.

TABLE I.-Continued.

| Average number of cubic feet per minute provided for each person | 34 | 13.00 kg | |
|--|---|--|--|
| Number of persons employed | 136 | 241 | |
| Yumber of cubic feet per -tuo is jud subsided in Jel | 41,615 | 50,500 | |
| Total quantity of air per minute circulating in all minute circulating the feet | 33,125 | 33,500 | |
| Number of cubic feet of air per minute entering the the fall sain and per minute at inlet at the sain and the | 34,460 | 45, 500 | |
| Vumber of splits of sir cur- | ~***** | * 00 0 * 00 * * # | ****** |
| ni sand sonati lo seath | | | |
| Power used | Steam | Steam. Steam. Steam. | |
| Name of fan | Gulbal, | Gulbal, Gulbal, Gulbal, | |
| Water gauge developed-in | | खबन्ध - | |
| Number of revolutions per | 23 23 | 9,5,5,6 | |
| Depth of blades in feet | 10 | . संबंध य | |
| Width of blades in feet | | 6.4.4.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6 | |
| Diameter of fan in feet | 9 : : : : : : : : : : : : : : : : : : : | 9999 | |
| motibilinev to bodieM | Fan, Natural, Natural, Natural, Natural, | Natural, Fan, Fan, Fan, Fan, Natural, | Natural. |
| (1886ous or non-gaseous | Gassous, Non-gas, Non-gas, Non-gas, Non-gas, Non-gas, | Non-tas. Non-tas. Non-tas. Non-tas. Non-tas. Non-tas. | Non-gas. Non-gas. Non-gas. Non-gas. Non-gas. Non-gas. Non-gas. |
| | | | |
| Sainego to bail | X X X X X X X X X X X X X X X X X X X | $\frac{2}{2} \frac{2}{3} \frac{2}$ | |
| put | | of the control of the | |
| ¥. | an Wickle Mountain, New, Cld, | and Co. | اهها ح |
| ** | Van Wickle R Mountain. New. Chi. | E : : : : : : : : : : : : : : : : : : : | high Coal Co. |
| f Oper | A. S. Van Wickle Buck Mountain, No. 2, New, No. 2, Culd, No. 3, No. 8, Stripping. | Pardee and Co. No. 2. No. 2. No. 21. No. 21. No. 21. No. 21. No. 21. No. 21. Wherton stripping. Manmoth stripping. | Lehigh Coal Co. |
| 0 | | | . 4-4 |
| Names of Operators and | Estate A. Coleraine, B. Coleraine N. Coleraine N. Coleraine N. Coleraine N. Coleraine N. Coleraine N. Coleraine N. Coleraine N. Coleraine N. Coleraine N. | Calvin Pardee and Co- Harwood No. 2. Harwood No. 5. Harwood No. 5. Harwood No. 19. Harwood No. 21. Harwood No. 10. Harwood, Wharton strippi Harwood, Mammoth strippi | Upper Lehigh Call Co. Stope No. 1. Stope No. 1. Stope No. 1. Stope No. 2. Stope No. 2. Stope No. 2. Stope No. 3. Stope No. 4. Stope No. |

| | 850 820 820 830 | 290 333 666 | 329 | | 750 500 440 | 262 | | - : | |
|-----------------------------------|---|---|---|---|--|-----------------------------------|-------------------------|-----------------------|---|
| | 0.3.63 | 2388 | 118 | | 8118 | 40 | | | |
| | 8,000 51,000 4,000 | 92,000 31,000 42,000 | 68,500 | | 14, (00 9, 000 19, 000 | 12,800 | | | |
| | 3,500 45, 90 17,50 | 18, 600 20, 000 20, 000 | 28,916 | | 12,000 6,000 11,000 | 10,500 | | | |
| | 6,000 45,(00 31,50) | 90, 600 30, 000 40, 000 | 67,000 | | 14,000 S,000 18,000 | 12,000 | | | |
| * * | H 44.00 | 8010) | 7 | * * * * * | | 61 | | * | * |
| <u> </u> | | | | | | : | | | |
| | Steam, Steam, | | Steam, . | | | Steam, . | | | |
| :: | | | | | | : | - | | : |
| | Guibal, Guibal, | | Guibal, | | | Dempfels, | | | |
| | | | ro : | | | | : | : | |
| | 9.08 | | 09 : | | | - 575 | : | | - :- |
| | | | _ :- | | | 65. | = : | : | |
| | 10.74 | | - " | | | - | | - | - |
| | - :44 : | _ ! ! ! | 9 : | | | 2.6 | | : | _ :- |
| :: | 199 | | 16 | | | 4 | : | | : |
| | Natural, Fan, Fan, | Natural, Natural, Natural, | Fan, Steam | Natural, Natural, Natural, Natural, Natural, | Natural, Natural, Steam jet. | Fan, | Natural | Natural, | Natural |
| Non-gas. | Non-gas. Gaseous, Gaseous, | Gaseous, Non-gas, Non-gas, | Non-gas. | Non-gas. Non-gas. Non-gas. Non-gas. | Non-gas. Non-gas. Non-gas. | Non-gas. | Non-gas. | Non-gas. | Non-gas. |
| :: | | 111 | :: | 11111 | 111 | : | : | | |
| Slope, | Slope. | Slope. | Slope. | S S Oppe | Slope, Shaft, | Slope. | Slope. | Tunnel, | Slope, |
| Stripping No. 5, Stripping No. 6, | C. M. Dodson and Co. Beaver Brook No. 6. Beaver Brook No. 10. Beaver Brook No. 11. Beaver Brook No. 15. | John S. Wentz and Co. Hazle Brook No. 5, Hazle Brook No. 6, Hazle Brook No. 7, | Hazle Mountain Coal Co. Hazle Mountain No. 1, Hazle Mountain No. 4, | M. S. Kemmerer and Co. Sandy Run No. 1, Sandy Run No. 2, Sandy Run No. 3, Sandy Run No. 4, Sandy Run No. 5, | Pond Creek Coal Co. Pond Creek No. 1, Pond Creek No. 2, Pond Creek No. 3, | Black Creek Coal Co. Harleigh, | Stauffer and Rowe Rowe. | Hacklebernic Coal Co. | Thomas R. Reese and Son Dusky Diamond, |

*Robbing, No air measurement taken.

TABLE 1.-Operators, location of collieries, railroads, etc.

| Railroad to Mine | C. R. R. of N. J. | Lehigh Valley | Lehigh Valley | Lehigh Valley | Lehigh Valley Lehigh Valley | Lehigh Valley | L. V., C. R. R. of N. J. and P. and R. | L. V. and D. S. and S. | C. R. R. of N. J. |
|--|--|---|---|---|----------------------------------|---|--|-------------------------------------|------------------------------|
| Post Office | Lansford, | Jeddo, | Hazleton, | Hazleton, | Lehigh | | L. V., C. R. R. and P. and R. | Lattimer Mines, | |
| Name of Superin- | Baird Snyder, Jr., | W. H. Smith, Jr., | Thomas Thomas, | W. H. Davies, | | Lattimer Mines, Calvin Pardee, Jr., Lattimer Mines, | | Calvin Pardee, Jr., Lattimer Mines, | C. Leisenring, Upper Lehigh, |
| Post Office | Lansford, | Jeddo, | Wilkes-Barre, | Wilkes-Barre, | Hazleton, Hazleton, | Lattimer Mines, | Hazleton, | Lattimer Mines | Upper Lehigh, |
| Name of General Superintendent | W. D. Zehner, Lansford, | John Markle, man- aging partner. | S. D. Warriner, | S. D. Warriner, | Frank Pardee, | A. W. Drake, | John Harvey, | A. W. Drake, | A. C. Leisenring, |
| County | Carbon, | Luzerne, | Luzerne, Luzerne, Carbon, | Luzerne, Luzerne, Carbon, Luzerne, Luzerne, Luzerne, | Luzerne, | . Luzerne, | . ('arbon, | . Luzerne, | Luzerne, |
| Names of Operators and Col- lieries | Lehigh (Yaal and Navigation Co. Colliery No. 1. Colliery No. 4. Colliery No. 5. Colliery No. 6. Colliery No. 9. Screen Building. | G. B. Markle and Co. Jeddo No. 4 and Ebervale. Highland No. 5. Highland Nos. 2 and 6, | Lehigh Valley Coal Co. Hazleton No. 1, Hazleton shaft, Spring Brook, | Coxe Brothers and Co. Inc. Drifton Nos. 1 and 2. Ekeley and Buck Mountain, Stockton, Beaver Meadow, Tombicken, Derringer and Gowan, | Cranberry East (Tystal Ridge, | Pardee Brothers and Co. | Estate A. S. Van Wickle Coleraine, | ('alvin Pardee and Co. Harwood, | Upper Lehigh, |

| Luzerne, E. L. Bullock, Audenried, R. G. Russell, Audenried, L. V. and C. R. R. of | Lehigh Valley | Lehigh Valley | Walter Leisenring, Sandy Run, C. R. R. of N. J. | Lehigh Valley | Lehigh Valley and C. R. | R. of N. J. Lehigh Valley | C. R. R. of N. J. | C. R. R. of N. J. |
|--|--|---------------------------------|---|--|-----------------------------------|--------------------------------|---|---|
| Audenried, | Hazle Brook, Lehigh Valley | Hazleton, Lehigh Valley | Sandy Run, | Zehner P. O., Lehigh Valley | | | C. R. R. of N. | |
| R. G. Russell, | John Weber, | W. A. Fuller, | Walter Leisenring, | I. D. Thomas, | William G. Thomas Hazleton, | | | |
| Audenried, | 1723 Land Title Building, Phila. | Penn Building, Philadelphia. | Upper Lehigh, | Hazleton, | Hazleton, | Hazieton, | Mauch Chunk, | Audenried, |
| E. L. Bullock, | Luzerne, John S. Wentz, 1723 Land Title Building, Phila. | Luzerne, W. R. McTurk, | M. S. Kemmerer, | Luzerne, William G. Thomas Hazleton, I. D. Thomas, | William G. Thomas | Luzerne, James Rowe, Hazleton, | D. E. Pursell, | on Luzerne, Thomas R. Reese, Audenried, |
| Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Carbon, | Luzerne, |
| C. M. Dodson and Co. Beaver Brook, | John S. Wentz and Co. | Hazle Mountain Coal Co. | M. S. Kemmerer and Co. Sandy Run, | Pond Creek Coal Co. | Black Creek Coal Co. Harleigh, | Stauffer and Rowe | Hackelbernie, Carbon, D. E. Pursell, Mauch Chunk, | Thomas R. Reese and Son Dusky Diamond, |

TABLE 2.-Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder and dynamite used, etc.

| Zumber of horses and mules | 18.65 % # : | 328 | S 19 S | ¢. c. c. | y (- o (- | 253 |
|--|--|--|---------------------------------|--|---|-----------|
| Number of pounds of dynamite | 93,500 77,500 47,00 43,950 43,425 | 368,375 | 51,908 49,544 261,741 | 18,380 36,376 | 30,510 538 13 251 | |
| Number of kegs of powder used | 1,869 675 75 200 | 2,810 | 3.319 | 4,333 | 3,637 | |
| Number of non-fatal accidents | | - 17 | 700 61 | × 60 + | 4 6 | 21 |
| Number of fatal accidents | 010317.000 | 2 0 | es re | - | ÷01 -01 | 1.7 |
| Zumber of employes | 25-14-4-15 20-14-4-15 | 2, 795 | 1.903 | 525 | 257 18 18 | 1,723 |
| Number of days worked (Totals are averages, not including washeries) | 256 256 256 123 264 264 366 | 272 | 283 | 252 | 88 F8 | 239 |
| Total production of coal in tons | 398, 765 236, 136 100, 692 351, 700 259, 831 18, 266 | 1,404,790 | 215, 933 | 268,885 174,128 | 2:0,905 | 1,007,577 |
| Number of tons sold to local trade and used by employes | | 25, 485 | 5,280 | 8.962 815 | 6, 795 | 99, 391 |
| Number of tons used at collicries | 25, 574 29, 574 31, 125 28, 26 28, 26 18, 26 | 138, 634 | 36,665 | 39,832 | 42, 704 | 139, 907 |
| Number of tons of coal shipped to market | 369, 091 197, 094 91, 530 320, 575 262, 331 | | 173.988 173.988 187,622 | 220,091 145,695 | 241,406 | 845, 343 |
| | | : | | | | |
| County | Carbon, | | Luzerne | Luzerne, Luzerne, | Carbon, Luzerne, Luzerne, | |
| Names of Operators and Collieries | Colliery No. 1. Colliery No. 1. Colliery No. 4. Colliery No. 5. Colliery No. 6. Colliery No. 6. Colliery No. 6. Screen Building, | G, B, Markle and Co. G, B, Markle and Co. Hisblack No. 4 and Ebervale. | Highland Nos. 2 and 6, Totals, | Coxe Brothers and Co., Inc. Drifton Nos 1 and 2. Stockley and Buck Mountain. Stockley. | Beaver Meadow. Tombieken. Derriner and Gowan. | Totals, |

'n

| 882 | 185 | 162 29 | 191 | 110 | 3 | 8 | 92 | 9 | @3 *** | 83 | 21 | 10 | 19 | 9 | 01 | 4 | 1.757 |
|---|----------|--|----------|-------------------------|------------------------------------|-----------------------|-----------------------|------------------------------------|--------------|-------------------------|------------------------|---------------------------------|----------------------|-------------------------|----------------------|---|----------------|
| 105,396 159,107 8,465 | 252,968 | 272,(25 | 272,025 | 246,675 | 92,000 | 124,325 | 39,044 | 19,175 | 1,600 | 66, 950 | 13,050 | 25.700 | 21,900 | 909 | 9,000 | 9 3 5 | 1,917,283 |
| 8,8.3 13,706 3,536 | 26,445 2 | 564 | 8,264 2 | 8,70) 2, | 2,900 | 7,580 13 | 5,362 | 008 | 2,159 | 200 | 861 | 370 | 008 | 862 | | 195 | 105, 469 1, 91 |
| 138 | 26 26 | L- W | 10. | 16 8 | 13 2 | 2 9 | 7 . 5 | 4 5, | 8 | 9 | | 1.0 | | | | | 1 |
| 4.60 | 7 2 | 9 : | 6 1 | 2 | 1 1 | 63 | | 1 | | 67 | | | | | | : | 181 |
| 96.6 | 403 | 1,102 | 276 | 87 | 654 | 796 | 678 | 494 | 363 | 334 | 164 | 148 | 17.5 | 86 | 22 | | 218 |
| 1, 806 3 1,19) | 01 | 11 | - | 1,228 | | | | | | | | | | | | | 15, |
| 231 | 222 | 236 | 236 | 646 | 200 | 252 | 238 | 220 | 247 | 255 | 214 | 214 | 249 | 787 | 275 | 301 | 88 |
| 347, 343 441, 439 162, 043 | 950,825 | 452, 338 59, 651 | 511,989 | 508, 121 | 341,179 | 324, 339 | 280,292 | 196, 673 | 156, 372 | 108,309 | 63, 997 | 49,080 | 44,806 | 15,938 | 12,160 | 7,065 | 7,068,235 |
| 54,452 359 1,780 | 56,591 | 5, 284 | 5,993 | 6,039 | 2,894 | 1,170 | 5,071 | 862 | 877 | 120 | 2,032 | 285 | 2,330 | 4,790 | 7,164 | 4,734 | 156,364 |
| 43, 890 54, 315 20, 411 | 118,616 | 55,381 | 61,733 | 45,000 | 43,016 | 43,800 | 41,967 | 21,187 | 20.000 | 7,500 | 7,300 | 3,800 | 5,400 | 2, 220 | 250 | 946 | 881, 650 |
| 249,001 386,765 139,852 | 775,618 | 391,673 52,590 | 444, 263 | 457,082 | 295, 269 | 289,369 | 233, 254 | 174,604 | 135, 495 | 100,680 | 54,665 | 44,945 | 37,076 | \$,923 | 4,746 | 1,694 | 6,081,321 |
| | | | | : | | : | | | | : | | : | : | : | : | : | |
| Luzerne, Luzerne, Carbon, | | Luzerne, Luzerne, | | Luzerne, | Carbon, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Carbon, | Luzerne, | |
| Hazleton No. 1, Hazleton No. 1, Hazleton shaft, Spring Brook, | Totals, | Cranberry, A. Pardee and Co. Rast Crystal Ridge, | Totals, | Pardee Brothers and Co. | Estate A. S. Van Wickle Coleraine, | Calvin Pardee and Co. | Upper Lehigh Coal Co. | C. M. Dodson and Co. Beaver Brook. | Hacle Brook, | Hazle Mountain Coai Co. | M. S. Kemmerer and Co. | Pond Creek, Pond Creek Coal Co. | Black Creek Coal Co. | Rowe, Stauffer and Rowe | Hacklebernie tunnel, | Thomas R. Reese and Son Dusky Diamond, | Grand totals, |

TABLE 2.—Recapitulation

| Number of horses and mules | 328 2381 2331 185 191 539 |
|--|---|
| Number of pounds of dynamite | 2,810 368,375 16,165 261,741 16,215 102,135 26,445 272,968 8,264 272,025 85,070 660,139 105,469 1,917,383 |
| Number of kegs of powder used | 2,810 16,065 16,215 26,445 8,264 85,070 105,469 |
| Number of non-fatal accidents | 24 21 22 21 26 10 61 61 |
| Number of fatal accidents | 41 14 (f) |
| Number of employes | 2, 795 1, 903 1, 723 2, 403 1, 276 5, 118 |
| Number of days worked (Totals are averages, not including washeries) | 250 220 220 236 236 248 |
| Total production of coal in tong | 1,404,790 1,007,577 1,007,577 950,825 511,989 2,118,256 |
| Number of tons sold to local trade and used by employes | 25, 485 6, 601 22, 327 56, 591 5, 993 38, 567 155, 364 |
| Number of tons used at collieries | 138, 634 130, 675 139, 907 118, 616 61, 733 242, 085 |
| Number of tons of coal shipped to market | 1,240,671 845,343 845,343 775,618 444,263 1,837,804 6,081,321 |
| County | Carbon, Luzerne, and Carbon, Carbon, and Carbon, Luzerne and Luzerne, Carbon, Carbon, |
| Names of Operators | Lehigh Coal and Navigation Co. G. R. Markle and Co. Coxe Brothers and Co., Inc. Lehigh Valley Coal Co. A. Pardee and Co. Miscellaneous companies. |

TABLE 2.-PART 2.

| | Number of air compressors | 63 | ර | : | H 63 | | | | | 23 |
|-------------------|---|---------------------------------|-----------------------------|-------------------------|--|---|--|---|---|----------|
| | Number of electric dynamos | | c3 c3 | 61 | | 4 [| | | | = = |
| per | Quantity delivered to surface minute-gallons | 6,940 | 8,221 | 7,000 | 7,600 | 4,950 | 1,157 | 1,000 | 200 | 64,884 |
| əjn | Capacity in gallons per min | 10,450 | 8,821 | 13,660 | 23,100 | 12,150 | 9000 | % 68 88 88 88 88 88 88 88 88 88 88 88 88 8 | P : : | 125,263 |
| ani1 | Number of pumps delive | t-a | 0.53 | 15 | 15 | ംല്ം | 62 10 4 | 440 | 1 : : | 119 |
| | Total horse power | 5, 595 | 5, 700 | 6,415 | 18, 239 3, 335 1, 144 | 1,216 | 750 610 | 150 | 948 | 52,092 |
| IIs 3 | Number of steam engines of | 153 | 100 | 89 | 28 27 27 27 | 54 16 | 10 | _ rc α | o → ← (| 2 2 289 |
| ives | Electric | | : : | 62 | | | : : | | | |
| Locomotives | ΤίΑ | | 900 | : | | | | | | 1 7 |
| Lo | Steam | 22 | 12 | 12 | 111.92 | 000 01 | 4 63 4 | | | 120 |
| ī | Total horse power | 12,876 | 8,910 12,815 | 7,720 | 2,250 2,250 2,250 | 18,81 88,82 88,82 88,82 88,83 | 1,350 | 660 | 348 | 64,361 |
| Boilers | Tewor seroH | 12,452 | $\frac{8.910}{12,155}$ | 6,340 | 2,415 2,725 2,025 | 1,140 | 1,350 | 660 150 | 848 | 57,622 |
| Number of Bollers | TsluduT | 43 | 56 | 42 | 28 113 128 138 | 127 | ග. ග | 4. FC G | 00 m + | 335 |
| Num | Horse power | 424 | 099 | 1,380 | 1,140 240 225 | 2,090 340 | | | | 6, 739 |
| | Cylindrical | 23 | 18 | 46 | 38 112 115 | 66 | | ε : : | | 240 |
| | > | and | and | and | | | | | | |
| | County | Luzerne | Luzerne, | Luzerne Carbon | Luzerne, Luzerne, Carbon, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | ruzerne, |
| | Names of Operators | Lehigh Coal and Navigation Co., | G. B. Markle and Co., Inc., | Lehigh Valley Coal Co., | A. Pardee and Co. Pardee Brothers and Co. Estate A. S. Van Wickle, | Upper Lebigh Coal Co., | John S. Wentz and Co., Hazle Mountain Coal Co. | M. S. Kemmerer and Co., Nach Creek Coal Co., | Stauffer and Rowe, Hacklebernie Coal Co. | Totals, |

*Jeddo tunnel drainase.

TABLE 3.-Number of each class of employes inside and outside of mines

| 1 | | | | | | | | |
|--------------|--|--|----------------------|---|---------|---|---------|---|
| | shieruo bas shiesi latot buerd | 138 257 258 258 258 258 258 258 258 258 258 258 | 2, 795 | 871 571 461 | 1,903 | 25.5 69 13 13 13 10 | 1,723 | |
| | Spistuo [stoT | 274 153 121 189 154 301 | 1,192 | 208 151 145 | 500 | 245 120 180 182 167 | 721 | |
| | seyolqme tentio IIA | 143 | 130 | 112 87 76 | 275 | 133 133 | 360 | |
| Metal Street | Bookkeepers and clerks | NEGER | -3 | 6) 6) 6) | 9 | ===== | 16 | |
| telda | Slate pickers (men) | 20 50 51 50 50 50 50 50 50 50 50 50 50 50 50 50 | 217 | 127 | 2000 | 82 5 8 | 130 | |
| 9 | Slate pickers (boys) | 228828 | 245 | 28 23 19 | 89 | 1 10 11 | 31 | |
| | Engineers and firemen | 28 8 25 25 8 | 148 | 27 18 24 | 69 | 25.22.35 | 118 | |
| | Blacksmiths and carpenters | த் மெல்ல மே 13 | 38 | 1223 | 45 | 8 :11 :61 | 46 | i |
| | ьогемей | 014 4314 | 100 | === | 63 | 11 | 9 | 1 |
| | Superintendents | | : | | 000 | | | - |
| | Total inside | 264 264 317 338 226 | 1,603 | 663 420 316 | 1,399 | 280 124 175 175 16 843 | 1,002 | |
| | All other employee | 102 87 79 92 69 | 429 | 115 45 36 | 196 | Egite 4 | 275 | - |
| | Company men | 11.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1 | 299 | 38 121 | 120 | | 23 | |
| | Гитртеп | 12 कि 51 स्ट्राप | 55 | বলত | 121 | φ - · · · · · · · · · · · · · · · · · · | 18 | |
| de | Door boys and helpers | 16 14 14 14 14 14 | 09 | 155 | 23 | 200121-8 | 33 | |
| Ins | Drivers and runners | 1 1 1 1 1 1 1 1 1 1 | 26 15 13 26 | 98 | | | | |
| | Miners' laborers | 13 123 123 133 143 | 204 | 155 116 116 | 403 | t-H-t- 63 | 33 | } |
| | Miners | 13883 | 415 | 292 168 105 | 565 | 152 41 43 77 188 | 504 | |
| li | relatant mine foremen re bosses and assistants iners | 34040 | 8 | 64 | 2 | 61 4 | 9] | |
| | Assistant mine foremen | 01-0101- | 00 | 00001 | = | 6113 61 62 | 53 | |
| | ine posses and assistants ine bosses and assistants iners laborers iners laborers iners and runners nd runners and runners and runners and runners and runners a | c3 14 67 64 63 | 10 | 2000 | 10 | 61 | £ | |
| | h | : | : | : | : | | | |
| 6 | Count | Carbon, | | Luzerne, | | Luzerne, Luzerne, Carbon, Luzerne, Luzerne, | | |
| | Names of Operators and Collierles | ~ | Totals, | G. B. Markle and Co. Highland No. 5. Highland No. 5. Highland Nos. 2 and 6, | Totals, | Coxe Brothers and Co., Inc. Drifton Nos. I and 2, Eckley and Buck Mountain, Stockton, Beaver Meadow, Tomhleken, | Totals, | |

| 1,190 407 | 2,403 | 1,102 | 1,276 | 1,228 | 153 | 296 | 819 | 494 | 363 | 334 | 164 | 148 | 175 | 48 | 27 | 6 | 15,218 |
|---|---------|--|---------|-------------------------|------------------------------------|---------------------------------|-----------------------|------------------------------------|---------------------------------------|-------------------------|-----------------------------------|--|-----------------------------------|-------------------------|---|---|---------------|
| 213 310 181 | 704 | 393 | 457 | 525 | 215 | 345 | 363 | 192 | 158 | 126 | 7.2 | 26 | 08 | 83 | 10 | 60 | 5,751 |
| 124 189 95 | 408 | 183 | 278 | 336 | 103 | 212 | 1333 | | 88 | 47 | 12 12 | : :: :: :: :: :: :: :: :: :: :: :: :: : | 33 | 10 | | 61 | 3,032 |
| en en en | L | 00 | 00 | t= | ~ | 9 | 10 | -# | 01 | C1 | 63 | | 63 | | - | | 80 |
| 7 20 16 | 43 | 28 | 580 | 28 | 15 | 22 | 22 | 39 | :: :: :: :: :: | t- | E | (a) | | | | | 119 |
| 10 4 50 10 50 | 130 | 18 | 18 | 7.7 | 97 | 38 | 32 | 88 | 50 | 7 | 15 | 41 | 30 | 10 | ما | | 527 |
| 888 | -1 | 48 | 59 | 1 40 | 14 | 11 82 | 53 | 23 | 18 | 12 | 0 | | 9 | п | - | - | £5. |
| 13 | 41 | 33 | 39 | 27 | 28 | 13 | 12 | 19 | ii 9 | 61 | ၈ | en | t | - | | : | 351 |
| | ಬ | 61 | 23 | | - | | 61 | | | 1 00 | - | | - | 1 - | - | 1 | 36 |
| | | | 1: | 1 | 1 - | - | 1 | - | - | - | - | - | - | : | - | 1 : | 15 |
| 593 880 226 | 1,699 | 709 | 819 | 200 | 439 | 451 | 315 | 302 | 202 | 208 | 8 | 95 | 95 | 153 | 17 | 9 | 9,467 |
| 171 180 38 | 389 | 50 | 7.0 | 30 | | 41 | | 155 | | | | - | 12 | | | | 1.442 |
| 1 : : : | | 36 | 41 | 87 | 44 | 29 | 23 | : 8 | 85 | 8 | 4, | 9 | 18 | 63 | | | 730 |
| t~ t~ t~ | 21 | 11 4 | 15 | | 9 | 6 | 63 | 101 | 9 | 60 | - | 63 | 64 | | | | 129 |
| 11 6 | 17. | 31 | 650 | 14 | 1 |]] | 6 | 6 | | 1 | - | l ro | - | | | - | 957 |
| 22 39 · | 78 | 61 | 1.1 | 42 | 32 | 38 | 36 | 1 22 | 15 | 151 | 9 | × | 9 | 60 | 63 | | 705 |
| 141 188 58 | 287 | 188 | 215 | 298 | 177 | 123 | 113 | 115 | 32 | 48 | 1 44 | 32 | 28 | 10 | oc | 60 | . 277 |
| 234] 451 · | 787 | 323 | 374 | 275 | 171 | 102 | 126 | 105 | 62 | 107 | 633 | 37 | 26 | 00 | 9 | 63 | 804 2. |
| 10 9 10 | 14 | 4: | | - | 00 | | | | | | ii : | | | : | | 1 | 52 3, |
| | . :] | | 00 | | | { - | + | | - | 62 | | | - | | | | 62 |
| 01 00 H | 9 | c: | 7 | 61 | 7 | - | 61 | - | - | - | - | - | - | - | - | | 20 |
| | : | | : | : | | | | | | | i | : | : | | | : | |
| Luzerne, Luzerne, Carbon, | | Luzerne, Luzerne, | | Luzerne, | Carbon, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne. | Carbon, | Luzerne, | |
| Lehigh Valley Coal Co. Hazleton No. 1, Hazleton shaft, Spring Brook, | Totals, | A. Pardee and Co. Cranberry, East Crystal Ridge, | Totals, | Pardee Brothers and Co. | Estate A. S. Van Wickle Coleraine, | ('alvin Pardee and Co. Harwood, | Upper Lehigh Coal Co. | C. M. Dodson and Co. Beaver Brook, | John S. Wentz and Co. Hazle Brook, | Hazle Mountain Coal Co. | M. S. Kemmerer and Co. Sandy Run, | Pond Creek Coal Co. | Black Creek Coal Co. Harleigh, | Stauffer and Rowe Rowe, | Hacklebernie Coal Co. Hacklebernie Tunnel, | Thomas R. Reese and Son Dusky Diamond, | Grand totals, |

TABLE 3.- Recapitulation

| | Grand total inside and outside | 2,795 | 1,903 | 2,403 | 1,276 | 15,218 |
|---------|--------------------------------|----------------------------|---|-------------------------|---|---------|
| | Total outside | 1,192 | 721 | 704 | 457 2,173 | 5, 751 |
| | All other employes | 530 | 360 | 408 | 1,181 | 3,032 |
| | Вооккееретѕ ала сlеткя | t- | 16 | oc | 40 | 80 |
| Outside | Slate pickers (men) | 217 | 38 | 43 | 191 | 67.1 |
| no | Slate pickers (boys) | 245 | 31 | 130 | 335 | 827 |
| | Engineers and fremen | 148 | 99 | 17 | 268 | 133 |
| | Blacksmiths and carpenters | 38 | 59 | 7 | 333 | 321 |
| | | [~ | 20 | es | 15. | 36 |
| | Superintendents | : | 2.1 | : | Ħ | 13 |
| | Total inside | 1,603 | 1,399 $1,002$ | 1,699 | 2,945 | 9,467 |
| | All other employes | 429 | 196 | 389 | 98 | 1,442 |
| | Company men | 299 | 22.23 | | 285 | 720 |
| | ьитртеп | 23 | 12 | 12 | 15 | 129 |
| Inside | Door boys and helpers | 09 | 63 63 | 17 | 233 | 226 |
| g | Drivers and runners | 136 | 101 86 | -18 | 11. | 705 |
| | Miners' laborers | 204 | 402 | 387 | 1,031 | 2,277 |
| | Miners | 415 | 565 | 181 | 374 | 3,804 |
| | Fire bosses and assistants | - 0: | 619 | 14 | 76 | 125 |
| | Assistant mine foremen | 00 | ======================================= | | Sl | 62 |
| | Mine foremen | 10 | 17.1- | 9 | 48 | 20 |
| | t. | } | and | and | and | |
| | County | Carbon, | Luzerne, Luzerne | Luzerne | Luzerne, Luzerne Carbon. | |
| | Names of Operators | Lehigh Coal and Navigation | G. B. Markle and Co., | Lehigh Valley Coal Co., | A. Pardee and Co., Miscellaneous companies, | Totals, |

TABLE 3.-PART 2.

| | Names of Operators and Collieries County | Colliery No. 1. Cehigh Coal and Navigation Co. Colliery No. 4. Colliery No. 5. Colliery No. 6 | Jeddo No. 4, and Ebervale, Highland No. 5, Highland Nos. 2 and 6, | e Brothers and Co., Inc. 1 and 2. bock Mountain. | | Lehigh Valley Coal Co. Lazerne, Hazleton No. 1. Hazleton shaft, Spring Brook. Carbon, | A. Pardee and Co. Luzerne, Fast trystal Ridge, | Pardee Brothers and Co. Luzerne, | Estate A. S. Van Wickle Carbon, |
|------------------------|--|--|---|--|-------|--|--|----------------------------------|---------------------------------|
| | January | 19 19 18 18 172 | 16 16 18 | 15 17 22 | 20 | 16 20 21 | 20 | 18 | 31 |
| | February | 13 19 19 20 20 20 20 | 15 17 18 | 19 | 21 | 112 | 16 | 8 | 25 |
| | Матећ | 23 119 204 204 204 204 204 | 1888 | 22 16 | 2 | 21.22 | 65 | 21 | 27 |
| Number of | lingA | 25 25 25 25 25 25 25 25 25 25 25 25 25 2 | 13 16 16 | 20 16 21 | 19 | 21 19 19 | 20 | 21 | 4.0 |
| of days | May | 22 : 23 : 23 : 23 : 23 : 23 : 23 : 23 : | 17 18 17 18 18 20 =================================== | | 23 22 | 22 22 20 20 20 22 22 | 21 22 | 21 23 | 26 25 |
| days Worked in Breaker | 1nf | 232232 | 16 16 16 | | 12 | 17 | 18 | 20 | 25 |
| n Breake | tsuguA | 25 2 2 2 2 2 2 3 2 3 3 3 3 3 3 3 3 3 3 3 | 15 | 16 20 20 | 61 | 17 | 71 | 12 | 52 |
| 10 | gebtemper. | 222222 | 10 16 17 | 15 | 55 | 20 20 18 | 21 | 21 | 255 |
| | October | 818181818 | 1212 | 152 | 22 | 18 18 | 21 | 8 | 25 |
| | November | 212 01 02 02 03 | 16 16 16 18 | 63.41 .63 | 23 | 19 17 17 | 18 | 20 | 25 |
| | December | ลลลลลล | 16 | 11 St St | 8 | 18 20 18 | ន | 21 | 255 |

Included in Derringer and Gowan.

TABLE 3.-PART 2.-Continued.

| | | | | | | Nun | nber of | Days V | Vorked | Number of Days Worked in Breaker | er | | | | | |
|--|------------|--|---------|----------|-------|----------|---------|--------|--------|----------------------------------|-----------|---------|----------|------------------|-------|--|
| Names of Operators and Collieries | County | , monact | January | February | Матећ | lingA | May | eunr | July | Auguat | September | October | Мочетрет | Dесешре г | Total | |
| Calvin Pardee and Co. | Luzerne, . | | 19 | | 23 | 19 | 8 | 21 | 21 | | 22 | 22 | 19 | 20 | 252 | |
| Upper Lehigh, | Luzerne, | <u> </u> | 21 | 1.52 | 20 | 17 | 21 | 81 | 17 | 17 | 02 | 21 | 21 | 21 | 238 | |
| Feaver Brook, | Luzerne, | : | 16 - | 17 | 19 | 18 | 19 | 19 | 19 | 17 | 20 | 18 | 19 | 19 | 220 | |
| John S. Wentz and Co. Hazle Brook. | Luzerne, | : | 11. | 12 | 121 | 20 | 21 | 19 | 20 | 12 | 22 | 65 | 253 | 21 | 247 | |
| Hazle Mountain, Coal Co. | . Luzerne, | i <u>i</u> : | 25 | 23 | 25 | 22 | Si | 24 | 10 | 30 | - 21 | 21 | 91 | 138 | 955 | |
| Sandy Run, | . Luzerne, | : | 0.5 | 17 | 20 | 13 | 15 | 17 | 18 | 17 | 16 | 18 | 61 | 23 | 214 | |
| | . Luzerne, | | 13 | 16 | 14 | 18 | 21 | 20 | 15 | 17 | 21 | 21 | 19 | 19 | 4.63 | |
| Harleigh, Black Creek Coal Co. | Luzerne, | : | 13 | 72 | 94 | 22 | 66 | 20 | 21 | 67 | 23 | 12 | 21 | 16 | 249 | |
| Rowe, Stauffer and Rowe | Luzerne, | : | | 22 | 10, | 24 | 233 | 23 | 255 | 96 | \$ 6° | 13. | 88 | 26 | 293 | |
| Hacklebernie, Coal Co. | Carbon, | : | 83 | 151 | 12, | 133 | 255 | 26 | 19 | 22 | 24 | 25 | ક્ર | 25 | 1010 | |
| Thomas R. Reese and Son Dusky Diamond, | Luzerne, | : | 63 | £0. | 58 | 61 61 | 26 | 22 | 252 | 26 | 3.6 | 26 | 96 | 22 | 301 | |
| | | | | | | | | | | - | | | | | | |

TABLE 4.-Fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Fatally injured by a rock rolling upon him. Outside. Drowned by rush of water into mine. Fatally killed by fall of roof in gangway. Way. Instantly killed by fall of roof in gangway. Instantly killed by falling down airway. Fatally injured by falling down airway. Fatally injured by falling down airway. Fatally injured by falling down airway. Fatally killed by falling down airway. Fatally injured by having his leg crushed shaft. Outside. Fatally injured by baving his leg crushed between mine locomotive and loaded car. Outside. Outside. Outside. | Smothered in rice coal pocket in breaker. Outside. Instantly killed by fall of coal in breast. Suffrested in airway which they were driving to surface, by the blocking of Instantly killed: run over by trip of loaded cars. Outside. Pursting of a retem waye. Outside. Fatally solded by the bursting of a retem waye. Outside. Fatally injured by failing down shaft. |
|---------------------------------------|--|---|
| County | Luzerne, Luzerne, Luzerne, Luzerne, Carbon, Carbon, Carbon, Carbon, Carbon, Carbon, Carbon, Carbon, Carbon, Carbon, Carbon, | Luzerne, Luzerne, Carbon, Carbon, Carbon, Luzerne, Luzerne, |
| Name of Mine | Buck Mt. Strip, Harleigh. Hazleton No. 1, Hazleton No. 1, Lansford No. 5, Lansford No. 5, Lansford No. 5, Lansford No. 6, Coleratine, Neequeb on i ng Tunnel No. 1, Lansford No. 5, Lansford No. 5, Lansford No. 5, Lattimer, | ranbery No. 4. Luzerne, Lattimer No. 4. Luzerne, Lansford No. 4. Carbon, Lansford No. 6. Carbon, Hazleton shaft. Luzerne, Pond Creek, Luzerne, Hazleton State Luzerne, |
| Number of orphans | co ⊢ 4₁0 co 10 co co | |
| swobiw to redmux | | |
| Married or single | Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z | Kin K in Kin kin |
| 934 | | 22 34 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| noitequesO | | |
| ValianoilaV | Russian, American, Tyrolean, Tyrolean, Slavonian, Slavonian, Italian, Tyrolean, American, Slavonian, | |
| Name of Person | Steve Krupka, Selma Zarian, Charles Hines, Paul Machaska, Anthrew Yancheck, Joseph Fistick, Joseph Fistick, Joseph Pistick, Joseph Pilti, James Filer, James Filer, Andrew Banker, | 14 Jacob Marsco, 18 Jawis Rencerall 18 Jawis Rencerall 25 Joseph Babh. 26 Robert Benson. 8 Paul Vetock. 9 Martin Getz. 11 Charles Callaghan, 14 George Las de. |
| finables to stad | Jyn. 5 11 11 11 11 114 114 115 116 Feb. 6 Narch 1 | April |

TABLE 4 .- Continued

| Nature and Cause of Accident tin Brief | Fatally injured by fall of coal from face | Fataling injured by fall of slate in stump | Fatally, injured by fall of coal from face | or pinar. Instantly killed by fall of slate in breast. Fratally injured by fall of coal in gang- | way. Fatally injured; squeezed between air | Fatally injured by premature blast. Fatally injured by premature blast. Fatally injured by fall of Slate. Fatally injured by fall of coal from pillar. Fatally injured by fall of slate in cross back. | Instantly killed by fall of coal in breast. Instantly killed by runaway cars at bot- | tom of sight. Fatally injured by fall of coal in breast. | Fatally injured; whirled around shaker | Fatally injured; run over by mine car. | whirled around r | Fatally injured by falling down his breast manway. Eatally injured by machinery on breaker | Outside. Patally injured by a fall of coal in breast, listantly killed by fall of slate. Fatally injured by a piece of slate striking him on head. |
|--|---|--|--|--|--|--|--|--|--|--|-------------------------------------|--|--|
| County | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, Luzerne, Luzerne, | Luzerne, | Luzerne, | Luzerne, | Carbon, | Carbon, | Carbon, | Luzerne, Luzerne, |
| Name of Mine | Hazle Mountain,. | Hazleton No. 1, | Harwood, | d No. 5, slope | No. 4. Highland No. 5, | Cranberry No. 4,. Harwood, Highland No. 5, Derringer, | Hazleton No. 1, Jeddo No. 4, | Cranberry No. 1 | ('ranberry, | Nesqueh o n i n g | No. 1. Hauto Screen Building. | Beaver Meadow No. 4 slope. | Lattimer, |
| Number of crphans | | | : | 9 | | - | . 4 | : | | | | | 67 :69 |
| swobiw to radmuN | | 1 | . <u>.</u> | - | : | - : : 4 | - | : | : | | | | |
| Married or single | M. | M. | X. | Z,∑. | 802 | Z X X Z | Z.S. | υ <u>΄</u> | v2 | υż | | X X | Z.o.Z |
| Age | 48 | 30 | 잌 | 38 | 13 | 25 57 30 | 52 53 | 29 | 10 | 17 | 17 | 29 | 23 47 |
| подзецизоО | Miner, | Laborer, | Miner, | Miner. | Patcher, | Miner, Miner, Laborer, Miner, | Miner, Bottom man, | Miner, | Separator at- | Driver, | Hopper tender. | Miner, | Miner, Miner, Laborer, |
| Vationality | Welsh, | Italian, | Russian, | Polish, | Slavonian | Russian, Slavenian, Hungarian, | Russian, | Pelish, | American, | Slavonian, . | Slavonian, . | Hungarian, | |
| Name of Person | Uriah Philips, | Toney Putuishko, | Charles Drusdotski, | Alex Sernefski, | John Kometz, | Anthony Matalavish, Andrew Yuvetzek, John Prebolie, Joseph Harwath, | Steve Guninski, Harvey McAffee, | Jacob Smell, | George Neikum, | Elias Holohan, | Thomas Brenk, | Steve Parra, | Keatan Kuzat. William Rhoda. Pasco Prett. |
| | æ | 10 | 21 | G 21 | 22 | 22220 | 25 4 | 6.3 | 23 | 22 | - 3 | Si & | 4 %8 to |
| Justices to etset | May | | | June | July | Aug. | | | | | Sept. | | Oct. |

| American, Bottom man, 29 M. 1 1 Jeddo No. 4, Luzerne, Fatally injured by being struck on the | down the slope. Fatally injured; head caught between top of car and breaker. Outside | [II] | H | [X | Fatally injured by fall of slate in breast. | |
|--|--|---|--|--|--|---|
| | : | | | : | | |
| Luzerne, | Luzerne, | Luzerne, | Carbon, . | Carbon, . | Luzerne, | |
| Jeddo No. 4, | Slatepicker, . 15 S Lattimer No. 3, Luzerne, | American, Miner, 30 M. 1 3 Hazleton shaft, Luzerne, | Hungarian, Laborer, 28 M. 1 Beaver Meadow, Carbon, | Greek, Driver, 22 S Lansford No. 9 Carbon, | Polish, Miner, 38 M. 1 5 Cranberry, Luzerne, | |
| - | : | ಣ | | : | 70 | _ |
| - | : | - | - | | - | |
| M. | υi | M. | M. | vi | M. | |
| 29 | rg. | 30 | 0C G-1 | 67 | 60 | |
| Bottom man, | Slatepicker, . | Miner, | Laborer, | Driver, | Miner, | |
| American, | Italian, | American, | Hungarian, | Greek, | Polish, | |
| : | | | | | | |
| Oct. 13 Frank Tysen, | 14 Dom Cortese, | Dec. 2 George Seiple, | John Seraga, | Mike Povlik, | 14 John Stiffer, | |
| Fr | D ₀ | g | Jo | MI | Jo | |
| 55 | 4. | 63 | 771 | 00 | 14 | |

TABLE 5.-Non-fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Leg fractured by being bumped by empty | Carry Arm State of Leg. and hand Compound fracture of leg, and hand | crushed by falling under cars. Outside, Face burned, by an explosion of powder | In strapping, Outside, Body squeezed between lockie and log on | Umber bank. Outside, Three fingers crushed by fall of slate. Two toes crushed by fall of coal. Leg fractured by a piece of frozen ma- | terral striking him. Outside. Leg fractured by fall of coal. Leg fractured by cars on rock bank. | Outside. Thigh fractured and contusions of back | by Tall of State. Skull and arm fractured by fall of coal. Spine injured and left hand cut by flying | | | car. Outside. Foot bruised by being run over by car. | Finest crushed between bumpers of car. | Longing by piece of coal striking him. Ankle fractured by wheel of car rubbing | against it. Contusion of side by being squeezed be- tween cars. Outside. |
|---------------------------------------|--|---|--|---|---|--|--|--|----------------------------------|---------------|--|--|--|--|
| County | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Carbon, Luzerne, Carbon, | Carbon, | Luzerne, | Luzerne, | Carbon, | Carbon, | Carbon, | Luzerne, | Luzerne, | Luzerne, |
| Name of Mine | Gowan 1 and 3, | Hazieton shaft, | Cranberry, | Ebervale, | Beaver Meadow, Hazleton shaft, Coleraine, | Lansford No. 5, | Jeddo No. 4, | Jeddo No. 4, | Beaver Meadow, Drifton, | Coleraine, | Beaver Meadow, | Eckley, | Cranberry No. 5 Cranberry No. 4 | Lattimer, |
| Married or single | M | Š. | M. | M. | MMM. | Z w | vî | M. | žv. | ZZ. | M. | ωi | vi vi | M. |
| Age. | 27 | 39 | ** | 43 | 2332 | 18 | 43 | 29 | 36 | 40 | 223 | 65 | 40 | 25 |
| noiJaquesO | Mincr, | Miner, | Strip miner, | Timber cutter, | Miner, Miner, Laborer, | Miner, | Miner, | Miner, | Miner, | Laborer, | Bottom man | Oiler, | Laborer, Driver, | Coal loader, |
| Vationality | Slavonian, | Irish, | Italian, | German, | Hungarian, Polish Hungarian, | Welsh, | Hungarian, | Polish, Hungarian, | Hungarian, | Hungarian, | Hungarian, | American, | Po'ish, | Italian, |
| Name of Person | George Pongrats, | Patrick Corcoran, William McBride, | John Sullivan, | Courad Sipple, | John Sherock, Mike Gelinski, Gerrge Lashko, | David Morgan, | Joseph Kuntz, | Andrew Krue, Charles Lemoklitz, | Mike Balanick, Eugine Bonner, | Steve Stemko. | Andrew Lazure, | Edward Davis, | Andrew Chashaski, | Rocco Dalois, |
| flables to staff | Jan. 9 | 10 | 1.1 | 18 | 455 | Peb. 4 | 1- | 9 01 | 13 | 16 | 17 | 18 | នតិ | 20 |

| Head cut by fall of coal, Head and hands cut by fall of coal, Compound fracture of leg by a collar fall. | ing upon him. Shoulder dislocated by a stick of timbe. | | stripping, Outside, Collar bone fractured; struck by a piece | of coal that rolled down slope. Contusions of back and side by fall of | Coal in breast. Rody bruised by fall of coal in breast. Arm fractured by falling; while playing | Face and hands burned by explosion of | Back injured by fall of coal in breast. Light injured by a rock rolling against him | Skull fractured by flying coal from a shot | he thought had missed. Arm fractured by flying coal from shot. Head cut by fall of slate in breast. Knee bruised between bumpers of cars. | Cutsue. Cut above eye by fall of east in breast. Leg fractured by a prop rolling upon | | house. Outsing. Head out by fall of ceal in breast. Scalp and hands lacerated by returning | to what he thought to be a missed hole. Toes crushed; caught between coal and | | in botter house. Outside. Rib tractured by fall of slate in gang- | way. Leg fractured by cars upon which he was | riding, becoming derailed. Ing finctured by fall of coal in breast. Contused back and lacerated face by fall | of enal in breast. Arm fractured between cars at bottom. | of slope. Log burned by dynamite which became | Ignical in his poor. I feel fractured by Jeank striking him while tearing down old water tank. Outside, |
|--|--|--------------------------|---|---|---|---------------------------------------|--|--|--|---|--|--|--|-----------------|---|---|---|---|--|---|
| | | | : | : | | : | : : | : | | | | | : | : | : | : | | : | | : |
| Luzerne, Luzerne, Luzerne, | Carbon, | Luzerne, | Carbon, | Luzerne, | Luzerne, Carbon, | Luzerne, | Luzerne, Luzerne, | Luzerne, | Luzerne, Luzerne, Luzerne, | Luzerne, Luzerne, | Luzerne, Luzerne, Carbon, | Carbon, Luzerne, | Carbon, | Luzerne, | Luzerne, | Luzerne. | Luzerne, | Luzerne, | Luzerne. | Luzerne, |
| Lattimer, Lattimer, Hazleton No. 1 | Coleraine, | Buck Mt. strip- ping. | Coleraine, | Harwood, | Lattimer. Spring Brook, | Hazleton No. 1 | Lattimer, | Hazleton shaft | Harleigh. Sandy Run, Harwood. | Lattimer, Cranberry No. 4 | Hazleton shaft, Lattimer, Beaver Meadow, | Coleraine, | Coleraine, | Derringer, | Pond Creek, | Upper Lehigh | Hazle Brook, | Hazle Brook, | Prifton No. 1, | Lattimer, |
| ZZZ. | 'n | vi | M. | vi | S. M. | υż | N. K | vi | MMM | N. K | ZZZ | N. N. | M. | M | υi | Ů. | vi. si. | ý, | ŭ. | υ.˙ |
| 898 | 51 | 65 | Ĉ. | | . 55 | . 27 | . 42 | . 23 | 888 | 888 | 355 | 888 | 861 | - 24 | . 46 | . 1 | 818 | . 99 | 96 | 65 |
| Miner, Laborer, Miner, | Miner, | Laborer, | Miner, | Laborer, | Miner, | Miner, | Miner, Laborer, | Miner, | Miner, Laborer, | Miner. | Miner, Miner, Fireman, | Miner, | Miner | Fireman, | Miner, | Driver, | Miner, | Laberer, | Miner, | Laborer, |
| Italian, Austrian, Slavonian, | American, | Polish, | Hungarian, | Russlan, | Irish, Hungarian, | Pelish, | Austrian, | Tyrolean, | Hungarian, Slavonian, Italian, | American, | Polish, Russian, | Hungarian, | Hungarian, | American, | German, | American, | Slavonian, | Slavonian, | Austrian, | Italian, |
| Gregiano Marsicano, Joseph Babik, Joseph Polkaski, | Rich E. Drum, | Nislosky Mickula, | Frank Orbay, | Alex Kochousky, | Neal McMemgal, Toncy Savaze, | Mike Vilesko, | Steve Bartel. Vicola Hauzuh. | Peter Bartola, | Mike Honeskie, Andrew Panko, Domnick Fuos, | John Stiles. | Mike Maxell, Anthony Bagashinske, | George Bushka, | Mike Shekeria, | Harvey Michael, | John Deal, | John Hinkle, | Mike Shimko. George Somburoskie, | John Goach, | Ludwig Bertoldi, | Toney Angelle, |
| | | - | and | | 1212 | 16 | 10 t- 21 21 | 30 | 101010 | 15.1 | 2717 | 113 | pros | 0.1 | , | Ţ. | | | | - |
| ត្តនិត | March 1 | 10 | 11 | 13 | 15. | - | 2121 | 5.5 | April | | m m m | | 21 | 0.1 | | | 11 | 001 | 50 | June |

TABLE 5.- Continued

| Nature and Cause of Accident in Brief | Collar bone fractured by falling from . | car agon which he was frame, and sight planes, face and hody burned, and sight of one eye destroyed by explosion of dy- | namite Collar bone fractured by fall of coal in | Bangway, Head injured by fall of coal. Head injured by a fall of coal. Hand blown off by an explosion of dy- | namite in battery. Leg fractured by falling off the bumper | of car. Head cut by falling coal from shot that | Leg crubbled by cars in attempting to get on trib Outside | Ribs trip by falling into an empty | real under chute. Pelvis fractured by being squeezed be- | I were call and upon name. Log crushel by being run over by a good club, outside | Control back; caught by a fall of coal | Hand blown off by an explosion of dy- | Hearing: caught between top of car- and collar | Collar bone fractured by falling from | Hands burned by an explosion of gas. Face and hands burned by an explosion | of gas. Severely burned by an explosion of powder. |
|---------------------------------------|---|---|---|--|---|---|--|------------------------------------|--|---|--|---------------------------------------|---|---------------------------------------|--|---|
| | i | : | : | | : | : | i | : | : | : | : | : | : | : | : : | i |
| County | Luzerne, | Luzerne, | Luzerne. | Luzerne, Luzerne, Luzerne, | Carbon, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne. | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne Luzerne, | Luzerne, |
| Name ot Mine | Hazle Brook, | Hazleton No. 1, | Buck Mountain, | Lattimer, Lattimer, Beaver Brook, | Coleraine, | Beaver Brook, | Buck Meantain, | Harwood, | Hazleton shaft, | Hazleton No. 1, | Hazleten shaft, | Highland No. 2 | Harwood, | Upper Lehigh, | Highland No. 5 | Hazleton shaft, |
| Married or single. | x | M | M. | EEX | Ý, | M | M | M. | vi. | wi | M. | M. | Æ. | vi | Z ci | vi |
| V Ke | 1.1 | <u>c1</u> | 87 | 248 | 15 | - 58 | - | 25 | | : 12 | 39 | 40 | 16 | 17 | 25 | 667 |
| Occupation | Patcher, | Miner, | Laborer, | Miner, Miner, Miner, | Driver, | Laborer, | Foreman, | Miner, | Miner, | Office boy, | Miner, | Miner, | Patcher, | Patcher, | Miner, | Miner, |
| Mationallty | American, | Poilsh, | Pelish, | Irish, Austrian, Polish, | American, | Polish, | American, | Hungarian, | Polish, | American, | Polish | Polish, | American, | American, | Hungarian | Polish, |
| Name of Person | William Gillespie, | William Ambaumcheck, | Anthony Stapauski, | Hugh Metive, J. h. Zeck, Mike Hobta, | | Joseph Saboski, | Maurice Houser, | M.k. Finanish, | John Kisalavish, | Calvin Ferry, | Andrew Lesco, | Mike Rashock, | Ge rge P. well. | Pantel Medee, | Peter Klucher, Joseph Berofski, | Fred Stryneski, |
| Date of accident | Tune :: | 15 | 1. | \$ G11 | July | 11 | 11 | 15 | 1 | 2.5 | 61 | 51 | 15 | Č.) | | Aug. 1 |

| Leg injured by fall of coal, Leg fractured by fall of coal. Leg fractured by a post failing upon him knocked out by derailed car. Outside. Hip dislocated and head cut by fall of salte in breast. Compound fracture of leg by falling under cars on plane. Outside. Leg fractured by fall of salte in breast. Leg fractured by fall of coal in breast. | Dedy contused and lacerated arm by an explosion of powder of the lack contused by fall of slate. Back contused by fall of slate, contusions of addomen by being squeezed by ears. Skull fractured and eye blown out by rectioning to what he supposed to be a knink to what he supposed to be a | missed shot. 'tut about head and hruised about bedy by returning to what he supposed to be a missed shot. Fracture of skull and hands and burned by an explosion of dynamite. ('ut on breast, face and hands and burned by an explosion of dynamite. Back and sides contused by a fall of slate. | Ribs fractured by a fall of slate. Cut and bruised by fall of slate, Ann dislocated by a collar falling upon bim. Leg fractured by being struck by piece of timber. Outside, by flying coal from Rib fractured; struck by flying coal from | Leg fractured by fall of coal. Leg fractured by being caught in drag line. Outside, by being caught in drag. Head and lonly injured by fall of slate. Face and hands burned by an explosion of goal. Face and hands burned by an explosion of goal. | Dislocation of spine by fall of state. Leg fractured by flying coal from shot in stripping, Outside. Lee crushed: run over by gondola bellow breaker. Outside. Brun state is spine state of the between mule and car. Head cut and leg injured by fall of state. |
|--|---|--|--|---|--|
| | | | | | |
| Luzerne, Luzerne, Luzerne, Luzerne, Luzerne, Luzerne, | Luzerne, Carbon, Luzerne, Luzerne, | Luzerne, Luzerne, Luzerne, | Luzerne, Luzerne, Carbon, Luzerne, Luzerne, | Carbon, Carbon, Carbon, Carbon, | Luzerne, Luzerne, Carbon, Luzerne, Luzerne, |
| Pond Creek, Beaver Brook, Pund Creek Drifton No. 1, Drifton No. 1 stripping E. Crystal Ridge Hazleton shaft, | Hazle Mountain, Highland No. 2, Spring Brook, Jeddo No. 4, | Beaver Meadow, Gowan Nos. 1 and 3. Cranberry No. 5, | Cranberry No. 1, Upper Lehigh, Coleraine, Lattimer, Hazleton No. 1, | Highland No. 5 Spring Brook, Lattimer, Spring Brook, | Highland No. 5 Drifton No. 1 stripping. Hazleton No. 1, Coleraine. |
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| | 34 23 34 34 34 34 | 27 27 20 20 | 5 8 8 8 8 | 23 23 24 23 23 23 23 23 23 23 23 23 23 23 23 23 2 | 27 27 27 42 |
| r, ter, | Miner, 33 Laborer, 39 Miner, 60 Driver, 23 Miner, 34 | Miner, 26 Miner, 27 Miner, 21 Laboner, 20 | Laborer, 20 Laborer, 26 Miner, 30 Laborer, 22 Laborer, 24 | | man, |
| | | | | er | ıy man, |
| Mike Patsock Polish Laborer, Miner John Luckotash, James Harkins, James Harkins, Frank Ross. Itish, Itish, Miner John Street, John Street, Hungarian, Miner German, Miner | Mike Bunk, Austrian, Miner, Joe Caravitch, Polish, Laborer, Frank Countan, Irish, Miner, Hugh McMonigal, American, Driver, Toney Carley, Italian, Miner, | Jacob Bartinetti, Italian, Miner, Joseph Filber, Hungarian, Miner, Fenenz Fatan, Hungarian, Miner, | John Galeski, Polish, Laborer, William Litcher, English, Laborer, It. E. Drum, American, Miner, Jamiel Gulute, Italian, Laborer, Wade Michelofski, Polish, Laborer, | Thomas Lawinka, Hungarian, Miner, James O'Donnell, American, Jig tender | Polish, Miner. Company man, American, Mail boy, American, Driver, Hungarian, Miner, |
| Polish Laborer Hungarian Miner Volish Carpenter Irish Miner Italian Patcher German Miner Hungarian Miner Austrian, Miner, Polish, Laborer, Irish, Miner, 1, American, Driver, Italian, Miner, | | Polish, Laborer, English, Laborer, American, Miner, Italian, Laborer, ci, Polish, Laborer, | , Hungarian, Miner, American, Jig tender, Italian, Laborer, Hungarian, Miner, Hungarian, Laborer, | Polish, Winer. Company man, Irish. Company man, American, Driver, American, Driver, Hungarian, Miner, |

TABLE 5.—Continued

| | | | | | | ES | | |
|---------------------------------------|--|--|--|--|------------------------|---|---|--|
| Nature and Cause of Accident in Brief | Log injured by flying coal from prema- ture blast. Head injured by flying coal from prema- ture blast. | Arm fractured by slipping on slope rol- ler. Both hands blumed by an explosion of East. | dynamite. Leg fractured by rock rolling upon him in stripping. Outside. Two fingers taken off by circular saw in | shop, Consider. Lee fractured by lump of coal rolling against him in stripping. Outside, Pace and hands burned by an explosion of gas. | | Kine dislocated and arm injured by fall of coal, located burned by an explosion of gase and neck burned by an explosion of gas. | Face and hands burned by an explosion of gas. Concussion of brain and lacerated scalp | by falling down slope. Spine fractured by fall of slate in breast. Arm fractured and hand lacerated by fall of coal. Leg lacerated by flying coal from shot. |
| County | Luzerne, | Luzerne, Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Luzerne, | Carbon, Luzerne, Luzerne, |
| Name of Mine | Hazle Mountain, I Hazle Mountain, I | Cranberry No. 4 I Upper Lehigh I Hazle Mount in, I | Harwood stri, ping, I | Stripping. Hazleton No. 1, I | Lattimer, I | Hazle Mountain, | Hazleton shaft, I Highland No. 2, I | Spring Brook, (Pond Creek, Upper Lehigh, 1 |
| Married or single | vi vi ≥ | M N N | M. v. | vi vi | vi vi | vi vi | M. M. | M MM |
| AgA | 22 22 25 | 8 8 8 | 35 | 12 13 | 17 | 61 61 61 f- | 259 | 24 E |
| noithagussO | Miner, | Miner, Miner, | Jack man, | Laborer, | Roll tender, | Laborer, | Miner, | Miner, Miner, |
| Nationality | Austrian, | Austrian, English, Hungarian, | Polish, | Italian, | Italian, Hungarian, | Lithuanian, | Polish, | Hungarian, Irish, Welsh, |
| Name of Person | : :: | Rudelf Betzie, William Mealine, Jacob Gietsky. | Jacob Szudy, | Cresenzo Moderli, Mike Wartier, | James Penn, | Charles Buseavish, | George Zamack | John Kondosh, Peter Gallagher, Thomas Evans. |
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| by e | a he | ot. y car | fall wer | fall d har | ntside and | falli |
| n off | while charging a hole. Hand and body lacerated by a premature | explosion of shot. | ed by ut lo | by fall of slate, leg fractured by fa | under cars. Outside. | mule |
| blowi | e cha | sion | actur | all of actur actur | spra | p.v. |
| Iand | whil | explo | side. eg fr njure | by fa fa fi fi fi | unde nkle | body side. |
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| Austrian, | Polish, Miner, 26 S. Hazleton No. 1, Luzerne, I | Polish, Laborer, 35 S. Pond Creek, Luzerne, Leg fractured by car striking him. Out- | | American, | Italian, Laborer, 56 M. Harwood stripping, Luzerne, Ankle sprained and slight contusions of | |
| Austrian, | Polish, | Polish, | Slavonian, Austrian, | American, Miner, 27 M Tipper Lehigh, Luzerne, Deg fractured by fall of coal. American, Loco. patcher, 22 S. Ebervale, Luzerne, Leg fractured and hand crushed by falling | Italian, | |
| | Polish, | Polish, | ay, Slavonian, Austrian, | | Italian, | |
| | | | shinko, Slavonian, Murway, Austrian, | | | |
| | | | Meshinko, Slavonian, ony Murway, Austrian, | | | |
| | | | John Meshinko, Slavonian, Anthony Murway, Austrian, | | | |
| bec. 2 Thomas Filine, Austrian, | 2 Blaze Pisah, Polish, | 4 Joseph Sipko, Polish, | S. John Meshinko, Slavonian, 13 Anthony Murway, Austrian, | 23 John Brogan, American, . | 23 Nicola Krish, Italian, | |

FATAL ACCIDENTS

By Falls of Coal, Slate and Roof

Dusky Diamond colliery, January 16, Joseph Fistick, Slavonian, miner, employed by Thomas R. Reese and Son, was fatally injured by a fall of coal. He had fired a shot in the bottom coal, and when he returned, he began picking the loose coal in the bottom without sounding the top coal. While in the act, some of the top coal fell on him, fracturing his thigh and pelvis. He died next day in the

Hazleton Hospital.

Lattimer, Pardee Brothers and Company, March 25, Joseph Babik, Slavonian laborer, met instant death by a fall of coal. John Kosovish, his miner, had fired a shot displacing two sets of timber. He then allowed his two laborers to go up into the place instead of going himself. While in the act of examining the top, they noticed the coal, which had been resting on the timber, was on a move and ready to fall. The one laborer succeeded in getting to a place of safety. Babik was not so fortunate. The mass of coal fell upon him, killing him instantly.

No. 1 slope. Hazle Mountain Coal Company, May 6, Uriah Philips, miner, was fatally injured by a fall of coal from the face of breast. He and his partner had fired a shot in face of breast and returned, and he was in the act of barring loose coal from the bottom bench, when without warning a bench of coal fell from about middle of vein, striking him upon the back, injuring him so severely that he died at his home a few hours after the accident. The unseen slip was no

doubt responsible for this accident.

Harwood No. 10 slope, Calvin Pardee and Company, May 24, Charles Drusdotski, Russian miner, was fatally injured by a fall of coal while robbing pillars. It is supposed that he was barring loose coal from the bottom bench, when a piece broke off even with his face, on account of the squeeze on pillar, and fell on him, catching him in a stooping position. He died in the Hazleton Hospital the

same evening.

Slope No. 4, Gowan, Coxe Brothers and Company, June 2, James Crawford, miner, was fatally injured. He, with two laborers, Henry Hoffman and John Auguston, were re-opening No. 22 East gangway. Crawford was using a bar to trim down some loose coal inside the timber, while the two laborers were loading a car. told them to stop loading, so that he could hear if anything was working or about to fall. Almost at the same time a fall took place, covering him up. The first fall did not kill him and he called for help. The laborers went at once to get help. Mine foreman, Thomas Morgans, and assistant foreman, John Kringe, with others, came to his rescue. From under the fall Crawford was directing them where they would find him. When they had almost reached him, another fall took place, which caused the men to flee for their own safety. This second fall evidently crushed out his life as they could get no further answer from him.

Highland No. 5, G. B. Markle and Company, July 31, John Prebolic, was fatally injured by a fall from side of pillar and died the next day at the Hazleton Hospital. John Zemany, his miner, left the hole

they were drilling and went to talk with Mr. Holland, the mine foreman. Prebolic had been drilling about one minute, when a piece of coal that hung out over him broke off, falling upon him and crushing him against the pillar. The miner stated that he had sounded the

piece before he started to drill the hole and thought it safe.

No. 1 slope, Lehigh Valley Coal Company, Hazleton, August 3, Steve Guninsky, Russian miner, was instantly killed by a fall of coal. He was working breast No. 38 in Buck Mountain vein, seventh level, West gangway. He had mined out the bottom and fired a shot in the top bench, which failed to bring it down. The coal was working, but he thought there was no danger, nor was there any as far as the top rock was concerned, as that was perfectly safe, but in barring down the loose coal he failed to stand in a safe place and it fell upon him.

Cranberry colliery, A. Pardee and Company, March 14, Jacob Marsco, Russian miner, was instantly killed by a fall of slate in a breast. He had fired a shot in the bottom bench of vein and without taking the proper precaution in examining his place, he went

under it, when a large piece of slate fell upon him.

No. 1 slope of the Hazle Mountain, April 14, George Lasoda, Slavonian miner, was fatally injured by a fall of slate. His laborer stated that Lasoda had sounded his top and trimmed down what he considered unsafe before starting to work in the morning. A V-shaped piece of slate fell from the top, striking him on the head, fracturing his skull.

Hazleton No. 1, Lehigh Valley Coal Company, May 10, Tony Putuishko, an Italian 'aborer, was fatally injured by a fall of slate. His miner had warned him not to go under the piece of slate he was going to blow down. Putuishko was, therefore, responsible for his

own death.

Highland No. 5, G. B. Markle and Company, May 26, Alex Sernefski, a Polish miner, met instant death by a fall of slate. His partner had called his attention to the top, telling him that it was bad. Sernefski said he would go in and bar it down, and the top slate fell on him, killing him instantly. The Buck Mountain vein usually carries a good top, but at this point, a slate top had come in on top of vein, and the men knowing it to be bad, should have taken

it down or put props under it.

Harwood slope No. 4, Calvin Pardee and Company, July 28, Andrew Yuvetzek, a Slavonian miner, was instantly killed by a fall of slate. He and his partner, Joseph Mulson, were engaged in taking out pillars in the Gama vein counter gangway. They had fired a shot on side of gangway, and without waiting for the smoke to clear, Yuvetzek went back against the protest of his partner. The vein carries a clod from eight inches to a foot thick. This clod had been undermined for some distance, and as soon as he arrived, where the shot was fired, a piece of clod fell on him, with result as above stated.

Derringer, Coxe Bros, and Company, Inc., August 2, Joseph Harwath was almost instantly killed by a fall of slate in a cross-cut. He and John Shofrauko, his partner, had fired a shot in the cross-cut. Harwath said that he would go into heading to rap to Shofrauko, who was going up into the breast. He was found under a

fall of slate, which they both knew to be unsafe, and which Shofrauko said that Harwath should watch in going into the heading.

Cranberry slope No. 1, A. Pardee and Company, August 23, Jacob Smell, Polish miner, was almost instantly killed by a fall of slate in the Parlor vein. The seam of coal where this man was killed is only four feet six inches thick, and it seems impossible that a person would be so careless as to be caught under a fall in a seam of that thickness. He was working out loose coal from the bottom bench, when a piece from the top, a mixture of bone and slate fell, striking

him upon the head.

Lattimer, Pardee Brothers and Company, September 28, Kaetan Kuzat, Italian miner, was fatally injured by a fall of slate in breast. He had mined the bottom bench ahead for some distance, and was blasting up bottom rock to put the road close to face, before blowing down the top coal. The bottom rock had been blasted up to the edge of where the top coal was standing. They did not think it necessary to examine this edge, as they had not had a shot in it for several days, and while in the act of cleaning up the rock, which the shot in the bottom had blown, some slate and coal fell from the edge. The accident was due to carelessness.

Upper Lehigh, September 30, William Rhoda, American miner, was instantly killed by a fall of slate. He was working in No. 2 shaft, small seam, about two feet thick, in taking out pillars. The piece of rock that fell on him appeared to be in place, and showed no sign of having been disturbed or loose. He was under this piece

picking out loose coal when the whole mass fell upon him.

Cranberry slope No. 6, A. Pardee and Company, October 5, Pasco Prett, Italian, laborer, was fatally injured by a fall of slate in the East Wharton gangway. He was assisting his miner, Joseph Kapish 2d, in preparing for a set of timber. The miner stated that he had trimmed down all loose rock from the top before starting to blast bottom rock to place the timber, but it seems that a small piece was overlooked, which fell striking Prett on the head, frac-

turing his skull.

Cranberry No. 1, A Pardee and Company, December 14, John Stiffer, Polish, miner, had fired a shot in his breast. After waiting some time, he returned to the face and began barring some of the loose coal, when a mass of top slate fell upon him, inflicting injuries from which he died. The thickness of the seam, the Parlor, was three feet four inches in the breast he was working, and that any one should be injured in a seam of that thickness, shows clearly the carelessness of the victim and his partner. The foreman had instructed them to stand props under this bad piece of slate, which

they promised to do.

Hazleton No. 1 colliery of the Lehigh Valley Coal Company, January 11, Selma Zariana, Tyrolean miner, and his laborer, Charles Hines, also a Tyrolean, were instantly killed. The face of the gangway was quite a distance inside of timber. The miner was in the face shoveling coal back to his other laborer, who was throwing it into the car. Hines was shoveling coal in the car also, but was standing nearer to Zariana. A piece of slate fell, killing them both, Zariana was responsible for this accident, as he knew the roof to be bad, and instead of loading coal, should have stood timber under the bad rock or taken it down. The coroner's jury so decided.

By Mine Cars, Inside

Lansford No. 5, Lehigh Coal and Navigation Company, March 1, James Filer, mine foreman, fatally injured. He was riding out the West 2d lift Red Ash gangway, on a mine locomotive. The locomotive became derailed and the first car of the trip mounted the locomotive, pinning his leg between the car and fire box, where he was held fast until the trip could be pulled back, with his leg roasting all this time. His leg not yielding to treatment, he was removed to the Hospital, where his leg was amputated. He died shortly afterwards.

Highland No. 5, G. B. Markle and Company, July 13, John Kometz, a young Slavonian patcher on air motor, was poling a train of cars down the turnout at the bottom of the slope. The engineer of motor told him to sand the rails. He stood on the bumpers of the motor to do so, and leaned out too far and was caught between motor and rib, causing internal injuries, from which he died later in the day at the Hazleton Hospital.

Slope No. 4 Jeddo, G. B. Markle and Company, August 14. Harvey McAffee, hitcher, at the bottom of the slope was killed instantly. He went up along the slope a short distance to fix a pair of spring latches. They had just sent up four cars. Three of them were to be taken off on the bridge, or surface landing. When the cars were up in the slope, and at a point where the grade increases, the coupling between the first and second car broke, and the three cars dashed to the bottom. McAffee, who had turned to come down the slope, heard them coming, but, instead of going into either side hole for safety, ran straight out on the turnout, and was caught by the runaway cars. If extra heavy couplings had been used this accident would not have occurred.

By Suffocation, Inside

Chute No. 151, East Red Ash, 2d level gangway of No. 5 shaft, Lehigh Coal and Navigation Company, March 11, George Zlock, Slavonian, miner, lost his life in a very peculiar manner. A mine locomotive runs into this gangway, and on the above date there was a new engineer on it. The locomotive in pulling the trip into the workings became stalled directly under the chute where Zlock was working. He had occasion to come down to the bottom of the chute, when he encountered the sulphur from the locomotive, the sulphur being driven up his chute by the blower, and instead of going back up the chute, he tried to reach the gangway, when he was overcome by the sulphur.

Lansford No. 4, Lehigh Coal and Navigation Company, March 25, Samuel Derby, American, and Robert Benson, English, were suffocated. They, with four others, were driving a new outlet on the crack seam, working three shifts, two men on a shift. These two men started to work at seven o'clock in the morning of above date, and were supposed to work until three o'clock in the afternoon, when they would be changed by another shift. When the three o'clock shift arrived at the bottom of the outlet, they were surprised to see that the men of the morning shift had not yet come down. After waiting for some time at the bottom of the hole, and seeing

no sign of the men coming, they rapped on the manway, receiving no reply. Mr. Reeves, the mine foreman was notified. When he arrived on the scene, he told the men to go up the outside manway, which was the regular traveled manway to see what they could learn. They proceeded up the manway for a long distance, when they came to a place where it was locked. They then came back and went up the inside manway, up around the face of the outlet. where they found some of their tools. They examined the face and found it trimmed carefully after the shots, but the men were not up at the face. They then went down the outside manway some distance, where they had a safety hole driven in the west pillar. Here they found one of the men sitting upon some plank, which had been placed across the manway, dead. Some distance below this point, the other man was found also dead. It is supposed that when they fired the shots, some large chunks of coal went down the outside manway, partly blocking it, and when they went up and trimmed the loose material off it fell upon the other material in the manway, completely blocking it and cutting off the ventilation. The ventilation in the mine was good, and the accident would not have happened had not the manway become blocked.

By Explosions of Powder and Dynamite

Nesquehoning Tunnel No. 1, Lehigh Coal and Navigation Company, February 15, Renega Poli, a Tyrolean laborer, was instantly killed by the explosion of a box of dynamite. He was employed in a tunnel and had asked the chargeman for the key of the box to go and put a cotton in his lamp. He had not been away long, when the explosion occurred. It is supposed that a spark from his lamp fell into the caps, which exploded them, causing the powder to explode, with the result as above stated.

Slope No. 3 of the Hazleton shaft colliery of the Lehigh Valley Coal Company, December 2, George Sciple, American miner, was fatally injured. He was in the act of tamping a shot containing dynamite with a steel drill, when the charge exploded, crushing his skull. His partner had his right hand blown off. Had these men obeyed the rules of manufacturers of dynamite, and used a wooden tamper, this accident would not have occurred. It is a rule, however, among miners, if the coal is strong, to put dynamite in the bottom of a cartridge of black powder to get better results. While it may give better results, it certainly is a very dangerous practice.

By Blasts, Inside

Cranberry No. 4, A. Pardee and Company, July 26, Anthony Matalavish, Russian miner, was fatally injured by a blast. He had ignited the squib, and attempted to get to a place of safety, but before he could do so, the shot went off, and he was caught by flying coal, injuring him so badly that he died about one hour after the accident at the Hazleton Hospital. Evidently he shortened the match on the squib, and paid the penalty with his life.

By Falling into Shafts

Pond Creek Coal Company shaft, April 13, Charles Callaghan, American, patcher, was fatally injured by falling down the shaft from the counter level to the bottom, a distance of forty-eight feet. He, with Andrew Bradley, the driver had come from the bottom vein to the top vein to change some cars for the miners. They had been up for about three-quarters of an hour, when they started to return to the bottom vein, Callaghan leading. When they arrived at the shaft, Callaghan opened the gate, and thinking the cage was there walked into the shaft, falling to the bottom. He died in the Hazleton Hospital the next morning.

By Falling into Slopes, Breasts, etc.

Lansford No. 5, Lehigh Coal and Navigation Company, January 14, Paul Macheska, Greek, miner, Andrew Yancheck, Slavonian, miner, and Joseph Good, Polish, laborer, were instantly killed. Filer, the mine foreman, had sent a Mr. Hemminger, a practical man, in with them to instruct them how to erect the platform, there being a very steep pitch on the outlet. When Mr. Hemminger began to instruct them, Paul Macheska made reply that he (Hemminger) thought that they did not know anything. He then left them to construct the platform in their own way. This they did by placing poles from one old leg across to the other old leg of the decayed timber, and while in the act of lifting one of the new legs into place, the platform gave way under them, precipitating them to the bottom of the outlet, a distance of about three hundred feet, all three were dead when picked up. This accident can be attributed to the ignorance of the victims, as they should have taken the advice of Mr. Hemminger and placed the • poles of the platform from the bottom rock to the top rock, instead of trusting to the old timber.

Slope No. 4, Beaver Meadow, Coxe Brothers and Company, Inc., September 25. Steve Parra, Hungarian, miner, was killed by falling down the manway of his breast. At about 10.15 A. M., mine foreman Henry Fox was making his rounds in gangway No. 13 west, and came to Parra's breast. While going through the crosscut, he found a cap upon which was a lighted mine lamp. He went to the face of the breast and not finding Parra there, went down the breast into the chute and found him lying in the chute unconscious. Upon the testimony of the men working the next breast outside of him, Parra had fired a shot in his breast while they were tamping two shots in their own breast. These two shots were fired, and it is probable that to avoid the smoke from these shots, which would come through this crosscut, Parra attempted to get into the manway,

and slipped, falling to the bottom.

Miscellaneous, Inside.

Harleigh mine of the Black Creek Coal Company, January 7, Peter Yesavitz, American pump boy, was drowned at the bottom of the slope. For a few days previous to the night of the accident, a general thaw had taken place, which caused the streams to rise to an unusual height. The ice coming down the Big Black Creek, which

runs nearly in a western course, and the ice in the Lattimer Creek, which runs nearly south, became gorged in the junction, causing the water to rise high enough to pour into an abandoned airway, and to run back along the gangway and fill the lower level of the slope. The boy who was at the pump, evidently became confused (being in the mine alone), and instead of going up a pump way, which was straight up to the surface, went out to the slope to see what was the matter, and was caught in the rush and drowned. His body was recovered about a week after the accident.

Jeddo slope No. 4, G. B. Markle and Company, October 13, Frank Tyson, the bottom man, was fatally injured. He had gone up on the slope to clean a pair of latches, while the cars were running in the slope, and while in the act of cleaning them, was struck on the head by a piece of coal which rolled down the slope. His skull was fractured and he died on the 15th at the Hazleton Hospital. He made a mistake in going up on the slope, while the cars were running. He should have gone up before giving the signal to the engineer to hoist.

By Cars, Outside

Lansford No. 6, Lehigh Coal and Navigation Company, April 8, Paul Vetock, Hungarian, outside laborer, was instantly killed by being run over by a trip of loaded gondolas, which was being taken out of breaker siding. His intention was to ride down to a point where he could cross the creek to go to his home. When the train upon which he was riding bumped into the other train, he was thrown off onto the track, the cars upon which he had been riding passed over him.

Nesquehoning colliery No. 1, Lehigh Coal and Navigation Company, August 27, Elias Holohan, Slavonian, driver, was run over by a car and died from his injuries at the Fountain Springs Hospital, Ashland, two days after. He was hauling a car of screenings from the top of refuse plane, when he slipped upon the rail and fell beneath the car, which ran over his leg. This was purely accidental.

Lattimer breaker No. 3, Pardee Brothers and Company, October 14, Domnick Cortese, Italian, slate picker on the breaker, was fatally injured. He, with several other boys, pushed a mine car up under the breaker and then got on the front end to ride down. When the front end reached the edge of the breaker, where the cross beam is quite low, his head was caught between the beam and the top of the car, causing a fracture of the skull, from which he died. This accident occurred before seven o'clock A. M., before starting time of breaker.

No. 9 colliery, Lansford, Lehigh Coal and Navigation Company, December 8, Mike Povlik, Greek, driver, was fatally injured. He was in the act of hauling from the boiler house two loaded ash cars. When the cars reached the top of the grade, he attempted to unhitch his mules and fell under the cars, receiving such injuries that he died shortly after. It was purely accidental.

By Machinery, Outside

Coleraine breaker of the Estate of A. S. Van Wickle, February 6, John Garro, Italian, Engineer, was instantly killed by being wound around the crank shaft of an engine. He had sent a boy to get a

belt coupling to repair the belt, and during the absence of the boy, it seems that he tried to get the belt off the engine, and in some manner was caught. When the boy returned, he immediately stopped the engine. This accident was due to the recklessness of the victim,

as he should have stopped the machinery to repair the belt.

Lehigh Valley, Hazleton shaft colliery, April 9, Martin Getz, water tender was killed in the boiler house. Boilers No. 8 and 9 had been ordered out of service on Saturday the 8th for repairs, and were blown out for this purpose. The repairs having been completed by Sunday evening, the fire was started under the No. 8 boiler at about 6:30. At 7:20, Getz, proceeded to connect it onto the main steam pipe line. When, from some unknown cause, the valve burst, scalding him so badly that when the steam was shut off and an investigation made, he was found dead between the No. 8 boiler and the economizer. The matter was referred to a coroner's inquest, and a verdict of accidental death rendered.

Cranberry of Λ . Pardee and Company, George Neikum, American, separator attendant, was fatally injured by being whirled around one of the shafts driving the machinery, and found on the floor about twelve feet below, where he had fallen when he became released from the shafting. His duties were to attend the separator, and here he was perfectly safe. But for some unknown reason, he had climbed up to a shaker, which is located away out of reach and about twelve feet above where he should have been, and was caught as above stated. It was said by the foreman that the boy was cautioned several times not to go where he had no business to go. My instructions to the foreman are, that if the boys will not desist in going from their place of duty, to discharge them.

Hauto screen building, Lehigh Coal and Navigation Company, September 1, Thomas Brenk, Slavonian, employed as a hopper tender, was killed while crossing over the main driving shaft in rear of screen building, his clothing became caught in some manner, and he was whirled around. His head striking upon the floor attracted the attention of some of the employes, who had the machinery stopped. When taken off, life was extinct. This boy also was away from his place of work, and had no business whatever where he met

his death.

Hazleton shaft breaker of the Lehigh Valley Coal Company, September 27, Peter Yeager, American, breaker oiler, was fatally injured. His duties called him to oil a journal which is on the mud screen gearing, and was only supposed to be oiled when the machinery was not in motion in the morning before starting time and at the noon hour. It is supposed that he forgot this part of the machinery while oiling at the dinner hour, and to avoid stopping the machinery again, attempted to oil it while in motion. Was caught on the driving shaft, and so seriously injured that he died shortly after reaching the Hazleton Hospital.

By Suffocation, Outside

Lattimer breaker, Pardee Brothers and Company, March 18, Louis Fencerail, Italian, outside laborer, was suffocated in the rice coal pocket. The pocket became blocked, and he went to shovel back coal. The loader, when he started to load, gave the usual warning

signal several times by drawing a little coal out and then closing the gate. The loader stated that he gave Fencerail ample time to get out of the pocket. This was corroborated by other witnesses. An inquest was called and the jury rendered a verdict of accidental death.

Miscellaneous, Outside

Stripping operations of Charles Dick and Company, January 5, Steve Krupka, stripping laborer, was almost instantly killed by a stone rolling down the bank, crushing his skull. He, with other men, was in act of chaining a large stone for steam shovel to lift into a car, when a small stone rolled down the bank. The men all ran to a place of safety. In the attempt to get away Krupka stumbled and fell, striking his head against a stone, which evidently stunned him, as he made no effort to get up. An instant later, a large stone rolled down and struck him on the head, fracturing his skull, death resulting in about one hour after the accident. This accident was unavoidable.

Lattimer, Pardee Brothers and Company, March 6, Andrew Banker, Slavonian, outside company laborer, was fatally injured. He with several others was engaged in unloading a car of sawed lumber, and while one of the men was taking the standards from the side of the car, the lumber started to slide, one of the pieces striking Banker on the back. He was immediately removed to the Hazleton Hospital, where they reported his spine fractured. He died March 25.

Beaver Meadow colliery of Coxe Brothers and Company, Inc., December 4, John Seraga, Hungarian, outside laborer, was instantly killed by an explosion of dynamite. He was engaged in unloading a car of tunnel rock on the dump. After all loose rock was out of the car, there remained some stuck to the bottom. To remove or loosen what remained, he got up on the side of the car, took a pick and sunk it into the rock to start it, when the explosion occurred. The car contained rock from the drainage tunnel in No. 4 slope, and it is supposed that a stick of dynamite, containing an exploder had been loaded into the car unknown to the tunnel men, and Seraga's pick struck the exploder, causing the explosion.

IMPROVEMENTS

LEHIGH COAL AND NAVIGATION COMPANY

Colliery No. 1.—A 600 H. P. battery of Stirling water-tube boilers is being added to the breaker boiler plant, and will shortly be put in operation.

Colliery No. 4.—1,200 horse power of Stirling water-tube boilers has been added to the colliery's boiler plant.

Colliery No. 5.—A clutch gearing has been placed on the No. 5 shaft hoisting engines, and coal is now being hoisted from the new third level, as well as from the old second level. A new 21 foot fan has been erected to improve the ventilation.

Colliery No. 9. -The new shaft level is now in operation. A 24 foot fan has been erected to improve the ventilation,

G. B. MARKLE AND COMPANY

Jeddo No. 4

Rock pump house driven at Tunnel "B" level, Wharton bottom.

Two single Cameron-Goyne pumps removed and a Jeansville compound condensing pump, 22x39x14x36 inches, placed at Wharton bottom.

Four new jigs installed.

Two vibrating shakers taken out and two rolling shakers installed.

New rock chute built to handle rock from mines.

New boiler house built to replace one destroyed by fire.

Plane from West Gangway "D," Slope "A," to an upper level driven:

Two oil tank cars put in service to supply car oil for mines.

Put in one set of steel steamboat rollers.

New Barley pocket put in west side of breaker; Oakdale 1st, South Side Water Works.

Installed new 100 H. P. Erie City boiler.

Removed 10x14x12 inch Rand air compressor.

Installed 12x14x14 inch Ingersoll-Sergeant air compressor.

Highland No. 5

Extended pea coal line 30 feet.

Built addition to boiler house.

Put in new barley pocket.

Eight inch bore hole, 190 feet deep, from surface to Slope "A," for

rope hole.

Two bore holes from West Gangway "C" to 2nd Lift Pink Ash, to level of 1,222 feet, to drain 3rd Lift, in addition to the four holes reported for 1904.

Took out fifteen cylinder boilers.

Installed four 300 H. P. Babcock and Wilcox boilers.

Changed 250 H. P. Cahall boiler from a waste heat to a direct fired boiler.

Extended plane roof 60 feet.

Installed one new jig.

Two oil tank cars put in service to carry car oil inside the mines.

Lowered tracks to load large cars under breaker.

Built new barley pocket on west side of breaker.

Highland No. 6

Drove airway to surface 250 feet long, connecting with shaft 28x8x8 feet, with concrete wall.

Put in one 10-foot Crawford and M Crimmon mine fan.

New 4 inch steam line from boiler house to fan.

Three-inch steam line down airway to pumps. New coal trestle built at boiler house.

Traveling way opened to surface.

Highland No. 2

Slope "E" in Wharton vein, second basin, begun.

Abandoned stripping "E."

21-22-1905

Installed two new jigs.

Two oil tank cars put in service to carry car oil inside the mines.

Put in three fire hydrants for better protection of breaker and surrounding buildings against fire.

Removed 10x12 inch hoisting engine from slope "B" and put in service at Slope "E."

No. 10 Cameron-Goyne pump put in Slope "B."

One hundred H. P. E. C. boiler taken out of Stripping "E" and installed at Highland No. 1.

Five-inch steam line from Highland No. 1 boiler house to Highland No. 2, Slope "E."

Ebervale

Built a flume from north side of Stripping "O" to the canal.

Jeddo

New oil house built.

Built addition of 60x36 feet to Jeddo stables for wagon shelter. New 12x12 foot fire hose house built and equipped.

COXE BROTHERS AND COMPANY, INCORPORATED

Drifton Colliery

No. 1 Slope.—Work in Lattimer has been continued during the year with 3 shovels; 294,479 yards have been removed, making the total yardage removed, in connection with these strippings, 1,849,223 yards. Mining to a limited extent has been carried on during the year, about 75,000 tons of coal having been removed.

Inside work at Drifton slope has been carried on principally in Wharton vein

Drifton Slope No. 2.—The gangways have been continued in the bottom split of the Buck Mountain vein, which varies from 2½ to 3 feet of clean coal. The southwest gangway has reached the boundary pillar arranged for between Coxe Brothers and Company and the Pardee interests. The tunnel driven within 100 yards of the Lattimer boundary line, mentioned in last year's report, has been continued, but has not penetrated any workable seam up to this date.

The new pump furnished by the Laidlaw-Dunn Gordon Company, Cincinnati, Ohio, has been started and is working satisfactorily.

Eckley Colliery.—Stripping the south basin of the Eckley slope No. 1 has been completed during the year, 40,000 yards having been removed up to July. The total yardage removed amounted to 1,213,117 yards.

A new stripping has been started over the so-called slope No. 6 old workings of the old Buck Mountain Coal Company. Two shovels are in operation, and 92,689 yards removed.

The stripping in East Spoon of Buck Mountain Slope No. 1 has been continued, 196,704 yards having been removed during the year. The total yardage removed to date is 737,030 yards.

Other strippings were started along the north crop of Slope No. 11, eastward. The first level started of Slope No. 11 proved a large

territory of coal unworked, and stripping this ground was considered the most economical operation. 27,266 yards have been removed during 1905. Slope No. 11 has been continued through rock and disturbed ground for about 260 feet and has reached the old bottom lift of the Slope No. 2 on the North side of the basin. It will be continued in coal for 350 feet to the bottom of the basin.

Beaver Meadow Colliery-114,790 yards have been removed in

the old Greenfield stripping, making a total of 775,459 yards.

The coal is mined continuously as the levels are formed by the shovels, so that the coal on the higher levels is worked before the shovel starts on the second level.

A local upheaval was met at the west end of the present excavation. The stripping will be extended westward, but the Eastern part of the basin will practically be cleaned out by the middle of

1906.

During the latter half of 1905 coal was taken from the North Temperance strippings, which had been partly completed three years ago. The drainage tunnel mentioned in last year's report, starting from the Gamma vein in Slope No. 4 and extending across measures into slope No. 2, south basin workings, has advanced 1,306 feet during the year and will tap the Wharton by the middle of February, 1906. This will relieve the Beaver Meadow colliery of all pumping for mining purposes; it will only pump to the breaker for the purpose of washing the coal.

Stockton Slope.—Residual mining has been continued in the Whav-

ton, Gamma and Primrose veins above water level.

Tomhicken Colliery.—Mining was continued on water level. Slope No. 8 located in the middle basin of the East slope workings has been continued. It will reach the top split of the Mammoth vein, within 80 feet of its present face, and will be continued through the dividing rock to the bottom split of the Mammoth vein and on to the Wharton for about a distance of 500 feet from the present face.

Derringer-Gowan Colliery.—There were no special improvements made. The gangways were continued, and the regular mining carried on.

LEHIGH VALLEY COAL COMPANY

Hazleton Shaft Colliery—Inside.—A tunnel driven on 2nd level of shaft from Primrose vein, north dip, to Primrose vein south dip, distance 450 feet.

Stockton No. 2 Slope.—Tunnel 8x12 feet driven from Primrose vein, south dip, to Orchard vein, north dip, distance 1,190 feet.

Hazleton Shaft Colliery—Outside.—A fresh water pipe line, 6 inches in diameter and 5,300 feet long, was built from Stockton reservoir to Hazleton shaft boiler house.

Electric haulage system installed, operated by an 18x20 inch Mc-Ewen 275 H. P. engine, D. C. to 175 K. W. Westinghouse dynamo.

Three motors are in use.

Spring Brook Colliery.—A rock slope was driven from Buck Mountain to Lykens Valley veins, 100 feet long. Size of slope 8x14 feet.

Spring Mountain Colliery.—A tunnel on No. 4 slope level, 139 feet long, from Mammoth to Wharton veins, size 8x12 feet.

A slope was sunk on Buck Mountain vein from crop to level of No. 4 slope bottoms; 540 feet long, 8 feet high and 12 feet wide.

A. PARDEE AND COMPANY

Cranberry Colliery

A new steel boiler house has been erected at Cranberry No. 1. The building is 182x60 feet. The roof is supported by steel trusses, 60 feet span, about 23 feet apart. The north side of the building rests on the retaining wall described in the last report, and the south side is supported on a low foundation wall. The iron work was furnished by the Allentown Rolling Mills and erected by the R. T. and C. D. Stewart Contracting Company of Easton, Pa. The building is covered with corrugated iron and makes an absolutely fire proof structure.

A new slope, Cranberry No. 6, has recently been put in operation. This slope opens the north basin and is located on the north side of the breaker. From the mouth of the slope, a trestle, four hundred feet long and twenty feet wide, connects with the tracks at the foot of the breaker plane. This trestle is dcuble tracked, forming the turnout at the head of the slope.

A fourteen foot bore hole has been sunk in the center of the No.

C basin, through which the water is pumped to the surface.

At the foot of the inside Wharton slope No. 3, a pump house has been excavated 26x70 feet. The parting rock between the Wharton and Parlor veins was taken out, making the height about thirty feet. In this new pump house, a Scranton compound condensing pump, 28x52x16x48 inches, is being installed. This pump will raise the water to the surface through a fourteen inch cased and cemented bore-hole. As some of this water is at times needed for wash water at the breaker, a connection with the column line is made where the bore-hole passes through the Mammoth vein. From here it runs along the gangway to the bottom of the main slope. Steam for this pump is furnished from the main boiler plant through a line about thirty-five hundred feet long. This line is erected on threeinch wrought pipe posts, fitted with a swinging hanger, the posts being set in concrete, three feet in the ground. The expansion of this line is taken up by elbow expansions every three hundred feet. The line is eight inch pipe from the boiler house to the bore-hole, a distance of three thousand feet. At this point it enters at the bottom of a thirty-four inch vertical cylinder, nine feet high. From the top of the cylinder, two six-inch lines are taken; one to the hoisting engines; the other down the bore-hole to the pump. These lines are covered with two layers of asbestos hair and one layer of hair felt. The layers are separated by rosin sized paper, and the outside is covered with standard tar and asbestos roofing. vertical cylinder separates the water from the steam and has a tilting trap connected at the bottom, through which the water passes out. The cylinder is enclosed with brick.

PARDEE BROTHERS, AND COMPANY

Lattimer

Installed two new Heine safety boilers, 260 H. P. each, at Central boiler plant near No. 4 breaker, making a total capacity of 2,080 H. P.

Built a conveyor line about 300 feet centres at No. 4 breaker, to be used to stock rice and barley coal.

Built a new locomotive house, size 24x130 feet, covering same with galvanized steel. All the locomotives of this company are now housed in this building.

Built two conveyor lines at No. 3 breaker to convey the boney coal from the rolls to the top of the breaker, doing away with a set of elevators.

Erected a new fan house and fan, with direct connected engine, on the Gamma vein at No. 4 slope.

Erected a new fan house and fan, with direct connected engine, on the Gamma vein at No. 8 slope.

Installed a new pair of 17x24 double hoisting engines, and erected a dump house to dump coal and rock, to be used in connection with a gunboat at No. 11 Primrose slope.

Sank slope in Gamma vein on north side of No. 2 basin to present level of No. 2 East Gamma gangway. This slope will be continued to the basin, to be used for hoisting ceal, rock and handling all mine timber used in the lower levels of Nos. 1 and 2 slopes.

Built a new reservoir near the No. 1 and No. 2 artesian wells, holding 1,125,000 gallons of water.

Re-arranged system of fresh water supply and piped all of the wells, to pump them by compressed air from Central Power Plant near No. 4 breaker, and discontinued the use of the old style walkingbeam and engines formerly used for pumping the wells. At each well a tower and tank was erected, and the air lift, valves, etc., were enclosed in a building of galvanized iron erected in the tower.

Erected a cutting-off saw mill near No. 3 breaker, to saw to size all timber used inside. This mill has reduced to a few men the force necessary to get out the mine timber used at this operation.

A fire pump and hose house has been built near the stables and connected to the 6 inch water main, to be used in case of fire at the eastern end of this property.

Primrose slope No. 11 has been sunk on the north dip a distance of 220 feet to the basin. An airway has been driven up on the south dip to the surface, on which a fan will be placed in the near future.

Slope No. 13 has been driven from the East Gamma counter slope No. 9 through top rock of the Gamma into Orphan's Home coal stripping of the Mammoth vein, to hoist Gamma coal to the surface in place of reloading it in slope No. 9.

Tunnel No. 24 has been driven from East Gamma gangway slope No. 13 to Mammoth vein, a distance of 50 feet for the purpose of robbing Mammoth vein on same level and taking it up by way of slope No. 13.

Tunnel No. 27 has been driven on the north dip of the anticlinal between No. 3 and No. 8 Mammoth basins, a distance of 13 feet into the Gamma vein.

Tunnel No. 25 from East Gamma gangway No. 2 west end to Buck Mountain vein going north, a distance of 117 feet to open up Buck Mountain vein.

Tunnel No. 22, continued from north dip to south dip of Gamma vein at No. 1, 2nd counter, has been driven a distance of 288 feet to open up Gamma vein in No. 4 basin.

Slope No. 14 in Mammoth vein, started from No. 1, 2nd counter

coal stripping, went northeast on a dip of about 25 degrees to a distance of 254 feet to rob the Mammoth vein.

Shaft basin slope has been opened up and driven a distance of 136 feet in the solid, making a total distance of 166 feet on a dip of about 18 degrees or 19 degrees going east, proving Buck Mountain vein.

Slope No. 10 has been continued to a distance of 124 feet from the level of No. 9 slope at West Mammoth south dip to the level of slopes 5 and 6, for the purpose of connecting it with No. 9 slope.

Slope No. 12 has been opened up through the West Gamma south dip to the level of slope No. 9, for the purpose of sinking from there deeper into the basin of Gamma vein; also for the purpose of hoisting rock and lowering timber, which will aid slope No. 9.

Tunnel No. 26 has been driven a distance of 48 feet from West Mammoth gangway slope No. 2, to Gamma vein, opposite slope No.

12, for the purpose of connecting with slope No. 12.

A small rock tunnel has been driven from No. 2 West Gamma into the Mammoth vein, for the purpose of lowering Milnesville water, which was 20 feet above the Gamma gangway. The total distance of said tunnel is 37 feet and was driven south on the south dip.

CALVIN PARDEE AND COMPANY

Harwood Colliery

Sank two inside slopes in No. 4 basin, one to the basin in the Gamma vein and the other to the basin in the Buck Mountain vein.

Drove tunnel in No. 5 slope from Gamma to Parlor vein.

Commenced stripping operations on the south outcrop of the Wharton vein east of the breaker. This stripping is 1,345 feet long and about 90 feet wide.

UPPER LEHIGH COAL COMPANY

Upper Lehigh Colliery

One set of manganese steel rolls has been placed in breaker, one

traveling platform and two new shakers installed.

No. 3 slope on the East End was abandoned and a new slope three hundred and eighty-five feet in depth was suak in the small underlying seam about four hundred feet west of the old slope, which was in the Buck Mountain seam. From this slope, gangways have been opened east and west. In No. 1 slope a tunnel was driven from Buck Mountain seam into the first underlying seam and gangways opened east and west. The tunnel was continued into the second underlying seam, a distance of forty feet. A new opening was made twenty-seven hundred feet west of the present shaft slope, and short gangways driven east and west.

A new engine house, boiler house and tipple were erected. The

tipple contains pockets for coal and rock.

BLACK CREEK COAL COMPANY

Harleigh Colliery

Three buildings erected: Pump house, 18x14; blacksmith shop, 42x24; boiler house, 80x43.

A tunnel was driven 147 feet from the Wharton to the Gamma vein and continued 93 feet from the Gamma to the Buck Mountain vein.

A pump way was driven to the surface from south pitch of Wharton vein.

An airway was driven to the surface from Gamma vein.

A mule way and steam way were driven from north pitch of Wharton vein.

Two hundred and fifty feet scraper line from breaker to boiler house.

Four jigs and automatic feed installed in breaker.

Six hundred 6 inch line erected.

Four 125 H. P. return tubular boilers added to boiler plant. One 104x8x16 Cameron pump for supplying breaker with water.

A ditch, 1,200 feet x 10x4 feet, and also a canal 400 feet x 30x6 feet, were excavated, and a large dam built, which changes the course of the Big Black Creek. This gives better drainage to the colliery and also serves as a prevention of flooding the mines.

Harwood Colliery and Cranberry Colliery Dam

Having learned of an encroachment in the Parlor vein workings by Messrs. Calvin Pardee and Company, owners of the Harwood colliery, upon the Cranberry property, operated by Messrs. A. Pardee and Company, which was discovered in August, 1901, when the West gangway at head of No. 2 plane from Cranberry broke into said trespass, and that a concrete dam had subsequently been built in the opening near the boundary line between the properties, I deemed it advisable while the dam and the adjacent workings were yet accessible to have a board of arbitrators appointed to make an investigation and to determine the question whether the dam as built and taken in connection with the surrounding strata would be a sufficient barrier for the protection of either mine in case of fire or water in the other. I therefore notified each of the adjoining owners to appoint an arbitrator.

Messrs. Calvin Pardee and Company named Wm. A. Cochran, of Pottsville, as their arbitrator; Messrs. A. Pardee and Company appointed their mining engineer, J. E. Anderson, and the Mine Inspector named Mr. T. D. Jones, of Hazleton, to represent him.

The arbitrators met in the Mine Inspector's office on June 30, 1905, to discuss the questions before them, at which meeting Messrs. C. J. Creveling, mining engineer for Calvin Pardee and Company, J. E. Altmiller, engineer for the Cranberry Improvement Company, lessors of Cranberry property, and David J. Roderick, Mine Inspector, were present; and, after much discussion and the examination of maps the board adjourned to meet again on July 5, 1905, at Harwood, to visit and examine the scene and construction of the dam. On that date there were present Messrs. Wm. A. Cochran, J. E. Auderson, T. D. Jones, A. W. Drake, C. J. Creveling, Thomas Hale, Robert Fagan, S. C. Fagan, Harry Hawk, George Ermold, Conrad Miller and D. J. Roderick, the entire party entering the mine through the man-way on north outcrop of Parlor vein from face of breast No. 58. On the way down this breast, at about 30 feet vertical above the dam, a crack was found in the bottom rock, extending

across the breast and into the pillar on the west side. This crack was presumed to have been caused by the caving in of the Wharton vein workings underlying, which were said to be robbed out in that vicinity, the thickness of rock and slate intervening between the Wharton (the underlying vein) and the Parlor vein being about forty feet. Thence the party traveled down to where the dam had been built, and into the dam through a man-hole that had been placed in both walls, and also into Harwood workings west of the dam. And after examining conditions on Harwood side in every particular, it it was decided to meet again at the Mine Inspector's office July 8 to take testimony.

At this meeting Mr. T. D. Jones was chosen Chairman and conducted the examination.

Mr. Benjamin Reese, inside foreman at No. 5 Cranberry colliery, for A. Pardee and Company, was the first witness called and testified in part, as follows: He was the mine foreman at the time the first mining was being done in the Wharton vein on Cranberry side of the boundary line. Drove the gangways as far as the surveyors allowed them to go. Breasts were driven on 48-foot centres, or 8yard breasts and 8-yard pillar, he thought, and were driven through from West gangway "C" to the gangway above. being too great, the lift was then cut off by counter-gangways. Vein was from six to eight feet in thickness, with pitch of from 28 to 30 degrees. The breasts were not of regular width all the way on account of the top being so poor that it had to be double-timbered in order to hold it. The character of the top was shelly-like. He said there was a breast driven up in the face of West gangway "C." on course of 7 to 10 degrees west, and that this breast went through to the upper gangway. He had not been there for about sixteen years and knew nothing about the construction of the dam. The robbing of pillars was done by his successor, Mr. Thomas Hale.

Thomas Hale testified, in part, as follows: "Am Assistant General Mine Foreman and have held that position about eighteen months. Prior to that was mine foreman and was foreman at the time the robbing was done in Wharton vein in the vicinity of the dam." He did not remember when he began to rob. "One pillar, if not two, was left in next to the line breasts in West gangway "C," but from there out we took everything we could get. Did not leave more than about five per cent, of the coal behind and the top rock caved. Did not notice any caving of the rock between the Wharton and the Parlor veins directly in the line, and did not see that crack near where the dam is until last Wednesday. Had no special instructions in regard to manner of robbing, but always notified the Mine Inspector. Was there at the time the gangway in Parlor vein from Cranberry holed into Harwood workings and found it about as it now is. Could get down in the Parlor workings to the level below where we broke into Harwood." He believed the rock was broken down between the Parlor and Wharton veins, but could not say if that was the case under the dam. The rock was broken in the bottom of the Parlor breasts and he thought the breasts they robbed in the Wharton vein were caved up to the Parlor. He believed that the condition of the intervening strata was such that the placing of the dam where it is would not prevent the water from coming into Cranberry. He had noticed the subsiding of the bottom of the





Parlor vein before the examination of July 5. A breast miner had told him that it was "all loose under him," and he noticed air coming up through a crack in the rock higher up in the breast. He had done no mining between the face of gangway "C," along the barrier pillar line, up to gangway "A." That breast from gangway "C" to gangway "A" had been driven when he went there, and there was no robbing done in that breast. Did not know of any counter-gangways

between gangways "C" and "A."

Robert Fagan, General Inside Foreman at Harwood, testified, in part, as follows: "Have been at Harwood about fifteen years and was there when the gangway in Parlor vein was driven over the line, but did not know we had worked over the line until the day after Cranberry holed into Harwood. We stopped the gangway, because we expected we were on the boundary line and no one suspected we had driven over the line, as we were very careful, and our instructions were very explicit in regard to the line. I noticed the crack in the bottom rock between the Parlor and the Wharton vein the other day when we examined the dam, but, before that time there were no depressions or cracks in sight, as far as I know. We discovered no cracks except a water-crack in the bottom, which we followed down until it cut clean out and we were sure there was nothing that we could call a crack. In the construction of the dam, I cut the hitches, top and bottom, and went from two to three feet into the solid on the upper side. Was present at the test of the dam and found it leaked on the Cranberry side through the vein in a few places, which would be expected under that pressure. Did not observe any leakage around the dam." In reply to the question: "What would be the result if the Harwood mine is filled with water, will the water come into Cranberry through the Wharton, from what you know of the condition of the rock between the Wharton and the Parlor?" Mr. Fagan said: "The water coming from Harwood side when coming against the inside wall of the dam will throw it further west." Q. "Would the water percolate there?" A. "No, sir." Q. "You do not believe it could if the bottom rock is broken?" A. "I do not believe the bottom rock is broken." Mr. Fagan further stated that the pillars of the vein that he drove over the line had all been robbed back. He said Mr. William was the mining engineer at the time and the encroachment was due to an error in the survey. Q. "From what you know do you consider the dam effective, taking into consideration the broken condition of the strata separating the Wharton and the Parlor veins?" A. "As we go west of the dam we find the bottom to be all right." Q. "Did you find any leakages on the Harwood side?" A. "We discovered some in the Parlor, not to a great extent." Q. Did you discover leakages on the Cranberry side?" A. "Yes, sir; in the Parlor, through the coal." Q. "Did you do anything to the dam after you discovered leakages?" A. "There was nothing we could do to stop them." Q. "Do you think that the leakage in the pillar where the dam is set was caused by the settling of the strata and the coal in the subsidence of the strata between the Wharton and the Parlor?" A. " I could hardly say. Think it was caused by the pressure of the water on that pillar." Q. "What is the pressure against that dam?" A. "Forty-eight pounds per square inch has been obtained by test." Q. "Do you think if there had not been any subsidence at all of this strata, would that water

leak through?" Λ . "I should judge that it would after being mined the way it is." Q. "Then you think that the water is coming through the natural seams in the coal, or through cracks caused by subsidence?" Λ . "The water that came through was due more to shocks from blasting the rock in the gangway and the blasting of the coal."

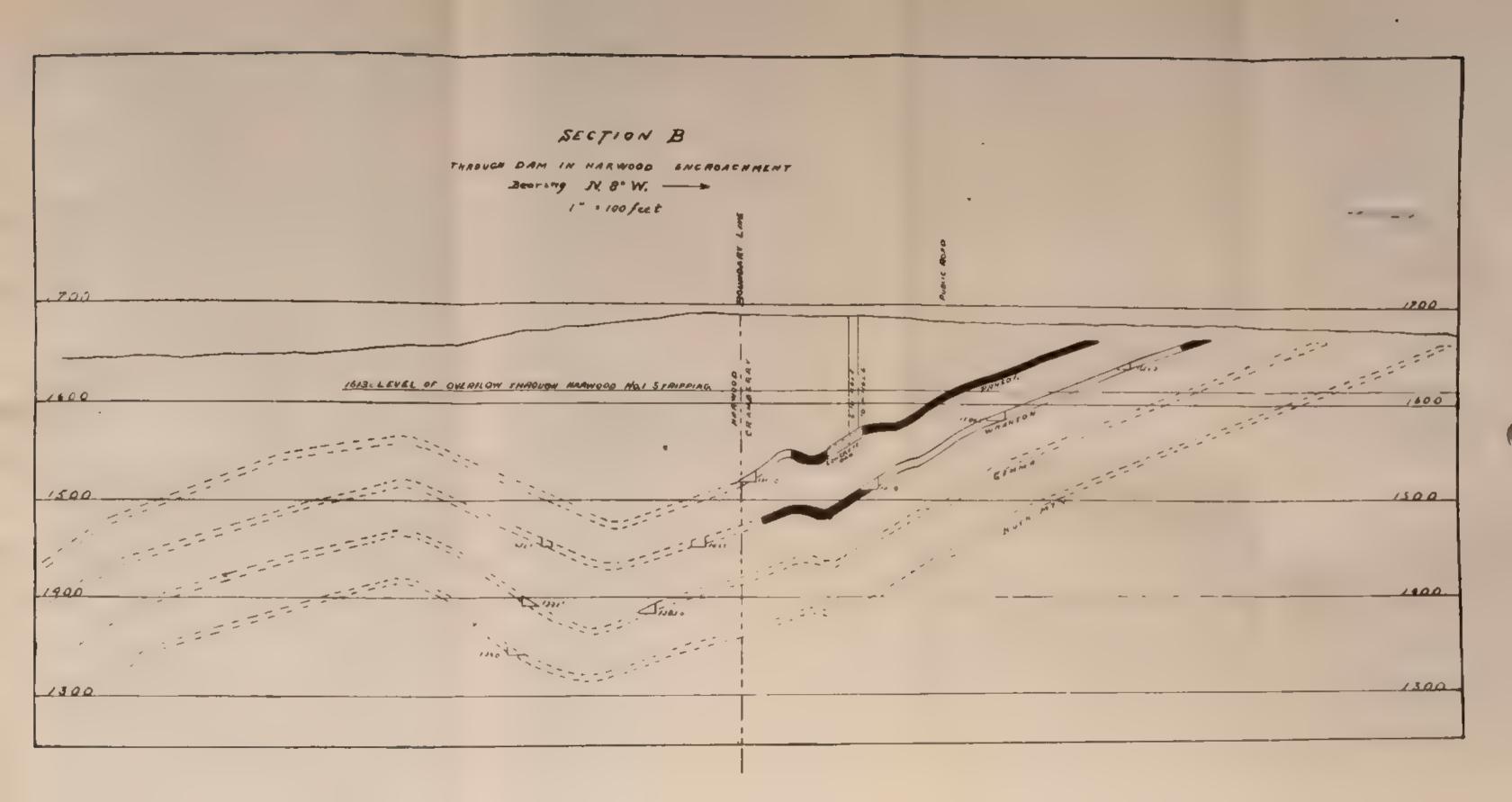
(Question by Mine Inspector, David J. Roderick): "I noticed when I was there the first time that you were only cutting hitches for two walls; the other day I noticed that there is a wall put on the north side of the dam between the two walls. What was the object of that?"

A. (By C. J. Creveling, mining engineer for Calvin Pardee and Company): "In the first place there were two or three props placed against the pillars between the dams on the north end. Back of these props they placed lagging to prevent pillars from chipping off. When we closed up the man-head in dams and filled the space between the dams with water, as the water rose up in the 6-inch water hole the leakage was perceptible on the east side of the pillar of breast No. 58 or the line breast driven up to the surface by A. Pardee and Company. We considered this leak due to the head of water and the constant increased pressure and the narrowness of the pillar between the west side of breast No. 58 and the west side of our eastern dam causing the water to go up through the seams in the coal and percolate through the pillar, running down chute of breast No. 58 into the gangway. In order to stop this leakage we, on October 6, 1904, had an interview with Mr. Frank Pardee, General Superintendent for A. Pardee and Company, in reference to his letter of July 22. We told him we thought we could make the dams water-tight provided we cemented the face of the coal on the north end of the dam. He said that if we could do this, it would be satisfactory to him."

Mr. Creveling said further: "There was a test made after this cementing was done and there was very little leakage; that is, it was more perceptible on the Harwood side near the north end of the dam." He said Mr. Robert Fagan, John Beach and Larry Gillespie were present at this test after the end wall was put in. They had a gauge on at that time which showed a pressure of 48 pounds per square inch, while the greatest pressure that would come against the dam in case Harwood filled with water would be 25.6 pounds, or a head of 59 feet. The test would merely show the stability of the strata at that particular point—between the two walls of the dam.

When asked if the test would show the condition of the strata north, south, west or east of the dam, Mr. Creveling replied: "No, sir. The map shows on the east the Wharton as being solid, and, in fact the same on the south and west. On the north—these dams being placed merely for test and not necessarily for strength to resist pressure from the head of Harwood water—admitting that the west wall of the dam is three or four feet south of the West gangway C in the Wharton vein, our eastern wall, according to surveys, is six feet south of the south side of West gangway C, and this wall alone would be sufficiently strong to resist all pressure from Harwood, notwithstanding the western wall was over West gangway C. Q. "Who drew up the plan of dams?" A. "They were drawn up by me. The idea was suggested by Mr. Frank Pardee,

PUBLIC ROAD



General Superintendent. Q. "Admitting that the dam in itself is all right, do you think that the water will come from Harwood to Cranberry owing to the condition of the intervening strata?" A. "Not unless the cracks extend west of the dam." Q. "Do you know of any cracks extending west of the dam?" A. No, sir; I looked over the ground very carefully." Q. "Do you know of the condition of the Wharton under and in the vicinity of the dam?" A. "I-believe I was on one of those surveys, but have no distinct recollection of the condition of the vein." Question (by J. E. Altmiller): "Were these plans you drew followed in building the dam?" A. "The 6-inch water hole was put down first and this was checked by J. E. Altmiller, engineer for the Cranberry Improvement Company. very kindly gave us his traverse of the location as a check. Subsequently we put down the two 10-inch holes in the north ends of the walls and delayed the progress of the hitches northward until the holes reached the bottom of the Parlor vein. We then extended our hitches until we came to the 10-inch bore hole and stopped so that the location of the 10-inch hole would be the exact location of the north end of our wall." Q. "How would the compressed air get in the upper end of the western wall if the bore hole was at the extreme end of the hitch?" A. "In answer, I would ask Mr. Altmiller how he knows there was any compressed air there; that is, north of the wall. The compression, of course, of the air occurred as our forms of the wall were filled with cement and as the cement moved northward there was bound to be a compression of air whether the end of the dam extended north of the borehole or not." A. (By Mr. Altmiller): "I gathered my information from the conversation with J. E. Anderson, engineer for A. Pardee and Company, who said he had suggested a plan for the removal of this compressed air, but I believe this was not carried out." A. (By Mr. Creveling): "This conversation with Mr. Anderson in relation to the release of the compressed air was carried out as far as the inside of the wall was concerned, that would be the air compressed by the water. Mr. Anderson and myself, at the dam, suggested that we take a 3-inch pipe and put it up at the highest point at the top rock between the dam and bend it so as to go to our 6-inch water hole, and, in order to prevent the water from coming down the pipe we put on two elbows turning the end of the pipe down the 6-inch hole, which should certainly have released all the compressed air between the walls."

Q. (By T. D. Jones): "After the final test was made was there any leakage on the Cranberry side." A. "There was a slight leakage." Q. "Was there any leakage on Harwood side?" A. "There was; in the top clod." Q. "Which side leaked the more?" A. "The

leakage was more on the Harwood side."

Mr. J. E. Altmiller, engineer for the Cranberry Improvement Company testified in part, as follows: "Am resident engineer for the landowners of Cranberry colliery and made the surveys and maps of the colliery for them. We follow up our surveys closely, especially in approaching boundary lines. Those in the Wharton vein were not brought up before they were robbed because at that time Mr. Thomas S. McNair was resident engineer for the Lehigh Valley Railroad Company, and he made only such surveys as requested by the Superintendent of the colliery. We now make surveys of adjoining collieries where their workings approach our boundaries,

and have been doing so for two years or more. Was in charge of surveys for the land-owners, as assistant engineer, at the time the Harwood people went over the line, but we did not then as a rule survey adjoining collieries. I learned of the trespass August 29. 1901, when one of my men reported it after an inspection of the Cranberry workings. It possibly was discovered the day before, August 28, when I believe Cranberry holed into it." Q. "What do you know about this dam?" A. "I know very little. Saw it after completion and was told during the progress of the work that I was to be invited to be present when the tests were made, but never received any notification of these tests." Q. Do you believe that this dam would be the means of keeping the water from coming into Cranberry in case the Harwood colliery was abandoned and drowned out?" A. I do not." Q. What is your reason?" A. "On account of the cracked and depressed condition of the intervening strata between the Parlor and the underlying Wharton vein in the vicinity of the dam and also from the fact that there is leakage at the upper ends of both walls." Q. "Have you been down to examine the dam and the conditions surrounding?" A. "Yes, sir; I have been down two or three times. The last time in company with Mr. Anderson, at the request of Mr. F. Pardee, General Superintendent, to note the condition as to whether there was any water near the dams, with the understanding that after the space between the walls had been filled with water, we were to go in again to note whether there had been any leakage. That has not yet been done. My instructions from the Cranberry Improvement Company are to see that a dam will be placed there which will be absolutely watertight, capable of withstanding the maximum pressure, and that it has been built upon a solid foundation to secure permanency." Q. (By Wm, A. Cochran): "Did you approve of the building of the dam in its present location." A. "I thought that the plan was worthy of a trial, but that it would be necessary to open into the Wharton to see what condition that was in." Q. "Suppose after going into the Wharton vein it was found to be badly fallen and the whole area under the encroachment was badly cracked, then how and where would you build a dam to fulfil the requirements?" A. "In connection with the present dam in the Parlor vein, if that could be made water-tight, I would build a dam in the Wharton vein from the lower side of West gangway C up to drainage level, some distance east, say fifty to one hundred feet, of the location of the dam in the Parlor vein, then slush the Wharton area from the Wharton dam west, which I think would silt up the cracks and sustain the intervening strata." Q. "Is there not a question as to whether this filling of the Wharton vein with silt would be effective in view of the falls of top rock, that is, it would be doubtful, unless you are able to examine the area proposed to be filled with silt." A. "That could be overcome by taking out the rock where there is any likelihood of its damming and preventing the culm from filling every space and crevice." Q. "Assuming that the Wharton vein would be filled with silt as you proposed and the strata between the two veins still being broken, would not the water still have means of passing from the Harwood to the Cranberry workings through the broken strata?" A. "If the silt had not filled up these cracks, which fact could be determined when the water come through into the Parlor, the cracks

could then be cut out and filled with cement from the top until this cement would meet the main body of the silt and overflow the cracks. In the event of cracks parallel with the stratification, which could not be reached by the cement, it would be necessary to cut through the rock from the Parlor vein down to the Wharton and build a dam solid from bottom of the Wharton to the top of the Parlor vein."

Mr. A. W. Drake, Superintendent for Calvin Pardee and Company, testified, in part, as follows: "My instructions to our engineers were to make duplicate surveys of workings approaching boundary lines. This encroachment was the result of a mistake of our engineer in his calculations in the office and his failure to carry out instructions as to duplicate surveys. Thomas J. Williams was the engineer in charge at the time. His corps made the surveys and Mr. Williams the calculations and did the plotting. We were not aware that we had driven over the line, and after the encroachment was discovered Mr. Williams maintained that his survey was correct. After the discovery A. Pardee and Company put men to work cleaning out the debris from the face of the breasts and pillars to note the extent of the trespass. A number of different plans were suggested by A. Pardee and Company and the Cranberry Improvement Company, by Mr. Altmiller, but nothing finally was decided upon until March 16, 1904, when Mr. Frank Pardee suggested the dams as have been constructed by us, and on March 23 he showed me a letter from the Cranberry Improvement Company approving of this plan of closing up the trespass. The dams were erected and first tested on June 20, 1904. July 12, 1904, the dams were inspected by Mr. Anderson and Mr. Creveling and at the suggestion of Mr. Anderson the space between the dams was filled with water and allowed to remain until July 19, 1904, when Mr. Anderson and Mr. Creveling again went into the dams and found the water had lowered by that time two and one-half inches. On June 28, 1904, dams were tested, showing a pressure of 32 pounds per square inch, showing water to be at an elevation of 1627.7, or 73.7 feet in hole. The greatest head that will ever be brought against these dams is 59 feet. This was before north end of dam was cemented in accordance with arrangement made with Mr. Frank Pardee, October 6, 1904."

Q. "Admitting that the dam would be all right, do you think the water would come into Cranberry owing to the coadition of the intervening strata?" A. "I would say no, for the reasons given before and providing there were no cracks in the bottom of the dam, and none have been discovered up to this time, and we believe we

have good reasons to think none exist."

Wm. A. Cochran to J. E. Altmiller, Engineer: Q. "Did you see any cracks in the Parlor vein breasts just west of the dam?" A. "There was a depression in the bottom rock which I would not say positively was caused by settling, about 100 feet west of the dam, and I also found a crack about 20 feet west of the dam in the bottom bone which would admit a knife blade, and from the fact that the large crack found in breast No. 58 and examined by the arbitrators July 5 showed only a sufficient width to admit a key in the bone, but when the bone was cut away it showed a very large crack, I fear the same condition would be disclosed by following the crack referred to."

T. D. Jones to Robert Fagan, Foreman: Q. "What is your experience in working the Wharton and Parlor veins, as to what effect the working of the Wharton has on the Parlor vein?" A. "My experience in working the entire vein has been that we could almost locate the pillars left in the Wharton. We found depressions or places where the Parlor is sunk away from the top and where the pillars were left in the Wharton, the Parlor is solid. In many cases we have to furnish the miners with dynamite to work the Parlor coal where the Wharton pillars were left under. Where the Wharton has been worked from under the Parlor vein we find the parlor loose and easier mined. The intervening rock falls down into the Wharton."

The arbitrators, Messrs. Wm. A. Cochran for Calvin Pardee and Company, J. E. Anderson for A. Pardee and Company, and T. D. Jones for the Inspector of Mines, after careful inspection of the dam and its surroundings, examination of the maps and sections, and proper consideration of the testimony of the witnesses called, viz.: Messrs. Benjamin Reese, Mine Foreman for A. Pardee and Company at the time the Wharton vein was developed in that part of Cranberry, Thomas. Hale, Assistant General Inside Superintendent for A. Pardee and Company, and Mine Foreman when the Wharton vein was robbed in that section; Robert Fagan, General Inside Superintendent for Calvin Pardee and Company, in charge of Harwood mines when the Parlor vein encroachment was made and the workings robbed back; C. J. Creveling, Mining Engineer for Calvin Pardee and Company, under whose directions the present dam was constructed; A. W. Drake, General Superintendent for Calvin Pardee and Company and J. E. Altmiller, Engineer for the Cranberry Improvement Company, landowners of the Cranberry property (copy of which testimony is made part hereof), beg to submit the following report:

It seems that the dam is placed where Cranberry holed into the encroachment from Harwood colliery. As to the construction of the dam and the manner in which it has been built, we are of the opinion that the dam is of little use toward keeping the water from coming into the Cranberry colliery, owing to the condition of the intervening strata between the Wharton and the Parlor veins, in

the latter vein of which the dam is constructed.

This dam is placed about 100 feet east of the boundary line at the face of West gangway "A," or No. 26, Parlor vein, and apparently on a solid foundation, with the exception of the north corner

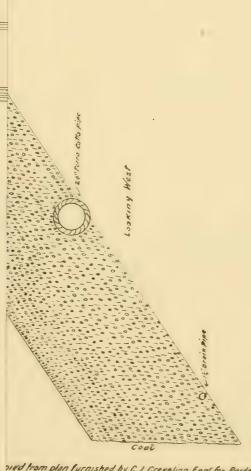
which is a few feet over the Wharton gangway.

The test made of the dam, in our opinion, only goes so far as to prove the stability of the dam itself, but it does not prove that the water will not come into Cranberry, as it only closes up the gap where the entrance was made from Cranberry into Harwood colliery. The test made of the dam is nothing more or less than a test, as it were, of water inserted in a bottle, on account of being surrounded on all sides by walls.

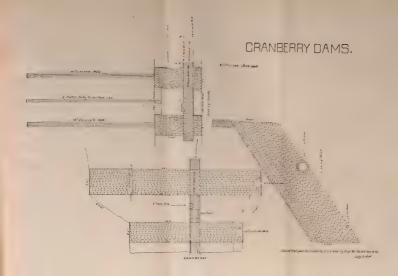
The north end of the dam, in our opinion, should not have been plastered up in order to prove the efficiency of the dam and the surroundings.

To determine or suggest a remedy to prevent the water from coming into Cranberry, from Harwood colliery, is a very difficult

IERRY DAMS.



ned from plan furnished by C.J. Creveling English Pardee Sons & Co.
July 7.1904.



proposition, owing to the condition of things as found by our examination in and around the vicinity of the dam. We noticed quite a large crack in the bottom rock of the Parlor vein, in which the dam is constructed, about thirty (30) feet vertically above the dam, which was caused by the working out or robbing of the Wharton vein underlying the Parlor vein. Mr. Hale, who was inside foreman at the time this portion of the Wharton vein was robbed, states that there is no more than five to ten per cent, of the solid contents of the Wharton vein left unmined in that vicinity. This crack extends across the breasts in the Parlor vein and into the pillar to the west. How far it extends into the pillar we cannot tell, but owing to the Wharton vein having been robbed out (and referring to statement of Mr. Hale in regard to the complete robbing of it), it is supposed that the intervening strata dividing the two veins is more or less in a damaged condition. Hence, the most practicable method in our opinion to remedy the damaged condition of the dividing rock would be, to sink a slope down in the Wharton vein, say about the size of a gangway, with a man-way on the east side, constructed of centre-props and plank, all the way down to the level of West gangway "C" (No. 18) and then seal this space with coal-dirt or other material as may be deemed most suitable, to an elevation where the water would not interfere with Cranberry. After this is accomplished, then do the same thing with the breast outside of the dam in the Parlor vein; but, before doing so, it would be advisable to fill the cracks in the bottom of the Parlor vein, outside the dam, with cement, wherever found; and in the meantime build a dam outside of the second breast in the Parlor vein, with props and plank, to prevent the filling material from extending too far out and to lessen the quantity. Of course, this plan would involve an outlay of considerable money; but, as we understand it, we are not to take into consideration the question of expense, but to recommend an efficient dam, having in mind its surroundings, in order to prevent the water from getting into Cranberry coiliery from Harwood colliery; so that the parties interested may work harmoniously toward building a permanent structure.

Suggestions have been given that possibly even with this method the water will find its way through the dividing rock of the two veins, but we think that the cementing of the cracks in the breasts in the Parlor vein, after the Wharton vein is filled with coal-dirt, is

the most practicable method.

Witnesses have testified that if the bottom rock inside of the dam is intact they would be satisfied that the water could not come into Cramberry, but, owing to the large cracks in the bottom rock having been discovered along the rib of the Parlor vein inside the dam, since our inspection, it is evident that the dam is of no use.

We would suggest leaving pillars in the Gamma and Buck Mountain veins for a distance of two hundred (200) feet east and west of the proposed dam.

(Signed) WM. A. COCHRAN, for Calvin Pardee and Company.

J. E. ANDERSON, for A. Pardee and Company.

T. D. JONES, for Inspector of Mines.

Hazleton, Pa., August 12, 1905.

Mine Foremen's Examinations

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in the Y. M. C. A. Building, Hazleton, May 8 and 9.

The Board of Examiners was: David J. Roderick, Inspector, E. L. Bullock, Superintendent, Fred Henry and Fred Young, miners. The following persons were recommended for certificates.

Mine Foremen

William Penn Griffith, John W. Borneisen, William B. Cunning, John L. Richards, Peter Zillig, William E. Stickler, James Conners, John E. Shinton, William R. Jeffrey, Timothy Ryan, Edward Doggett, Elmer Evans, James D. Griffith, Patrick J. Conahan, William Dunkerly, William Harlor, William J. Gilbert.

Assistant Mine Foremen

William Davis, Odgen M. White, John Beacroft, John Chisnell. William, Mace, August Miller, Conrad Helwig, Joseph Petrill.

Tenth District

SCHUYLKILL COUNTY

Shenandoah, Pa., February 20, 1906.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting to you my annual report as Inspector of Mines for the Tenth Anthracite District, for the year ending December 31, 1905.

The production of coal shows an increase of 72,518 tons over the preceding year, and yet there was, I am pleased to state, a decrease of 11 in the number of fatal accidents.

Respectfully submitted,

A. B. LAMB, Inspector.

SUMMARY OF STATISTICS

| 31 |
|-----------|
| 21 |
| 20 |
| 3,645,548 |
| 422,004 |
| 64,463 |
| 4,132,015 |
| 6,138 |
| 3,924 |
| 19 |
| 8 |
| 51 |
| 11 |
| 217,474 |
| 323 |
| 490 |
| 120 |
| |
| 357 |
| 12 |
| 27 |
| 1 |
| 23 |
| 4 |
| 29 |
| 16 |
| 4 |
| 1 |
| |

TABLE A

PRODUCTION OF COAL

| Names of Operators | Tons |
|---|-----------|
| Philadelphia and Reading Coal and Iron Company, | 2,396,642 |
| Lehigh Valley Coal Company, | 871,546 |
| Susquehanna Coal Company, | 277,027 |
| Brookwood Coal Company, | 103,514 |
| Thomas Colliery Company, | 106,690 |
| Cambridge Coal Company, | 81,235 |
| Gerber and Seaman, | 64,308 |
| W. R. McTurk Coal Company, | 118,382 |
| Brighton Coal Company, | 78,887 |
| Raven Run Coal Company, | 23,832 |
| H. H. Smith and Company, | 9,952 |
| Total, | 4,132,015 |
| Production by Counties | |
| Schuylkill, | 4,132,015 |

TABLE B.-Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

| əpp | Number of employes outs | 306 608 250 92 |
|---------------------|---|--|
| əbis | Number of employes ins per non-fatal accident | 150 105 105 105 120 120 |
| əpis | Number of employes outs | 250 |
| 9bis | Number of employes ins per fatal accident | 336 2014 478 323 |
| | Total number of employes | 6,484 1,836 728 200 169 92 553 10,062 |
| əbi | Number of employes outs | 2,446 600 250 123 58 58 3,924 |
| Э | Number of emplyes insid | 4,038 1,228 478 77 111 206 6,138 |
| | Tons of cast produced fight produced insident inside | SS. 764 72, 629 30, 781 106, 630 40, 612 81, 620 |
| per | Tons of coal produced | 199, 73 0 146, 258 277, 627 217, 474 |
| dents | Total | 62 1 1 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |
| ul Acci | Outside | 8 H H H |
| Non-fatal Accidents | Piside | 27 27 27 22 |
| | Total | 19 6 2 2 27 |
| Fatal Accidents | Outside | C |
| Fatal | Instide | 11 66 19 |
| | Names of Operators | Philade-luhia and Reading Coal and Iron Co. Lehigh Valley Ceal Co. Susquehama Ceal Co. Thomas Politry Co. Cambringe Ceal Co. Brighten Coal Co. Miscellaneous companies. Totals and averages for district. |

TABLE C.-Classification of Fatal Accidents Inside and Outside of Mines

| | Months | | | | | | | | | | | | | |
|---|---------|-------------|-------|-------|-----|-------|------|--------|-----------|---------|----------|------------|-----------------------|--|
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Falls of coal, Falls of slate, Falls of roof, Mine cars, Explosions of gas and dust, Explosions of powder and dyna- | 1 2 | | | | | 1 | | | | | | 2 1 | 5 2 2 2 1 | 26.32 10.53 10.53 10.53 5.26 |
| mite, blasts, Falling into slopes, etc., | | | | | | ····2 | , | | | | | | 3 2 1 1 | 15.78 10.53 5.26 5.26 |
| Totals, | == | | == | | == | == | == | 2 | | == | == | == | 19 == | ===== |
| Cars, Machinery, Miscellaneous, | | 1 1 2 | 1 | | | | | 2 | | | | | 1 3 4 | 12.50 37.50 50.00 |
| Totals, | | 4 | 1 | | | | | 2 | | 1 | | | 8 | 100 |
| Grand totals inside and outside, | 4 | 5 | 2 | | 3 | 4 | | 4 | | 1 | | 4 | 27 | |

TABLE D.-Classification of Non-fatal Accidents Inside and Outside of Mines

| | | | | | | | М | onth | ıs | | | | | |
|---|---------|----------|-------|--------|---------|----------------|---------------|--------|-----------|----------------------|-----------------|---------------|--|---|
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Falls of coal, Falls of slate, Mine cars, Explosions of gas and dust, Explosions of powder and dynamite, Premature blasts, Crushed at batteries, Miscellaneous, | | 2 | 1 1 1 | 1 2 2 | 2 4 1 | 1 1 1 | 1 | 3 | 1 | 1 2 2 1 | 1 1 2 | 2 1 | 4 2 9 16 2 4 1 13 | 7.84 3.92 17.65 31.38 3.92 7.84 1.96 25.49 |
| Totals, Causes of Accidents Outside Cars, Machanes | 3 | 3 -= | 3 | G = | 7 == | <u>4</u> == | 1 | 3 | 2 | 8 === | 5 == 1 | 6 | 51 =- 2 1 | 100 ===== 18.18 9.00 |
| Totals, | 3 | 1 4 | 1 4 | 6 | 7 | 4 | $\frac{1}{2}$ | 1 1 4 | 2 2 4 | $\frac{1}{2}$ | 1 6 | $\frac{1}{7}$ | 8 11 62 | 72.73 |

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

| | | | | | | M | [ont] | hs | | | | | |
|--|---------|----------|-----------------------|-------|----------|-----------------|-------|--------|-----------|---------|----------|------------------------|--|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Inside Miners, Miners' laborers, Drivers and runners, Doorboys and helpers, Totals, Outside Slatepickers (boys), All other employes, | 4== | | 1 1 == 1 | | 1 1 3 == | 2 1 1 | == | 2 | | | === | 3 1 4 === | 18 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| Totals, Grand totals inside and outside, | 4 | -4 -5 | 1 2 | | 3 | - | | 2 | | 1 | | 4 | 27 |

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|--|---------|----------|-------|-------|-----|-------------|------|--------|-----------|-------------|-------------|----------|--------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Miners, Miners' laborers, Drivers and runners, All other employes, | | 3 | 2 | 5 | 6 1 | 2 1 1 | · i | 3 | 1 | 5 2 1 | 3 1 1 | 1 1 4 | 3: |
| Totals, | 3 | 3 | 3 | 6 | 7 | 4 | 1 | 3 | 2 | 8 | 5 | 6 | 5 |
| Outside Blacksmiths and carpenters, Slatepickers (boys), | | | 1 | | | | | | 2 | 1 1 | | | 1 |
| Totals, | 3 | 1 -4 | 1 4 | 6 | 7 | 4 | 2 | 1 4 | 2 4 | 2 10 | 1 6 | 1 7 | 7 |

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

| American, 2 2 2 1 1 1 1 1 English, 1 1 1 German, 1 1 1 German, 1 1 1 Hungarian, 1 1 Lithuanian, 1 2 1 1 2 2 1 1 2 Russian, 1 1 1 1 1 1 1 1 1 | | Months | | | | | | | | | | | | |
|--|--|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|--------|
| English 1 trish 1 Jerman 1 Polish 1 Hungarian 1 Lithuanian 1 Russian 1 1 2 1 1 1 2 1 1 1 | | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| 3reek, 1 1 1 | nglish, rish, erman, folish, lungarian, ithuanian, ussian, | 1 | 1 1 1 | 1 | | | 1 | | | | | | i | |

TABLE H.-Nationality of Persons Injured Inside and Outside of Mines

| Italian 1 1 1 1 Lithuanian 1 1 1 6 1 2 1 2 2 1 Austrian 1 1 1 2 1 2 1 1 Russian 1 1 1 2 1 2 1 | | | | | | | M | onth | ns | | | | | |
|---|--|---------|----------|-------|-------|-----|------|------|--------|---------|---------|-------|----------|--------|
| Italian 1 1 1 1 Lithuanian 1 1 1 6 1 2 1 2 2 1 Austrian 1 1 1 2 1 2 1 1 Russian 1 1 1 2 1 2 1 | | January | February | March | April | May | June | July | August | | October | 0 | December | Totals |
| | English, Welsh, rish, lerman, folish, Hungarian, tallan, jithuanian, Austrian, | 1 | 2 | 2 | | 1 | 1 2 | 1 | | 1 1 1 1 | 1 | 2 2 2 | 1 1 1 1 | 1: |

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of pers ons employed inside, and quantity of air produced for each person per minute

| * | | |
|---|--|---|
| Average number of cubic feet per minute provided for each person | 25.00 | 368 367 201 201 368 368 368 368 368 368 368 368 368 368 |
| Number of persons employed inside | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 25.5 25.5 25.5 25.5 25.5 25.5 25.5 25.5 |
| Number of cubic feet per minute passing out at out- jet | NS, 65.2 184, 6.0 70, 450 175, 100 175, 100 175, 100 115, 52) | 83,000 97,000 59,000 132,035 |
| Total quantity of air per Ila ni ginibelionie in all the splits in cubic feet | 115, 147 140, 850 66, 800 66, 800 103, 45, 63 87, 600 | 79, 200 77, e00 45, 000 110, 690 |
| The to feel of all the forth of the per minute entering the mine at injections. | 115, 147 136, 200 68, 700 68, 700 15, 700 125, 000 | 83,000 97,000 70,470 |
| Number of splits of air cur- | φ ω σουστίω ω ω ω ω ω ω ω ω ω ω ω ω ω ω ω ω ω ω | 4.0 % 6.4 |
| Power used | Steam, | Steam,. |
| nsl lo smsN | Gulbal | Gufbal, |
| Trater gauge developed -in | 75 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 | 74 6-10 7-10 1 2-10 |
| Number of revolutions per | 888 85 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | 46868 |
| Depth of blades in feet | 40004464444446444 | 5 4 4 1 2 4 4 1 2 4 4 1 2 4 4 1 2 4 |
| Width of blades in feet | 46674676004447664 | 00000 |
| Diameter of fan in feet | 3222222288 8222222288 822222228 822222228 8222222 | 188818 |
| Method of ventilation | Fan. Fan. Fan. Fan. Fan. Fan. Fan. Gan. Fan. | Fan, Fan, Fan, Fan, |
| snossg-uou oo snosseก | Gascous, Gas | Gaseous, Gaseous, Gaseous, Gaseous, |
| Kind of opening | Shope Shope Shope Shope Shope Shope Shope Shope Shope Shope Shope Shope Shope Shope Shope Shope Shope Shope Shope | Slope Slope Shaft |
| Names of Operators and Mines | | Lehigh Valley Coal Co. Packer No. 2. Packer No. 4. Packer No. 4. Packer No. 5. |

| | - | | | • | | |
|----------------------|-----------------------------------|--------------------------------|------------------------------------|--|-------------------------------|-----------------------|
| | 252 | | 273 | | 248 | 99.28 |
| | 418 | | === | | 5.7 | 92 |
| | 211, 470 478 | | 23,000 | | 21,957 | 41,000 |
| | 120, 400 | | 21,000 | | 18,118 | 34,000 |
| | 151, 135 | | 23,000 | | 20,640 | 40,000 |
| | 10 | 1 : | | : : | 0 | 4 |
| | Steam, | | Steam, | Steam, | Steam, | Steam, |
| ~ | Guibal, | | Guibal, | Guibal, | Guibal, | Guibal, |
| | 11/8 11/8 S-10 | | | : : | 1/2 | 11 |
| | 888 | : | -08 | :: | 70 | 128 |
| | 2 - 4 50 50 | | 4 | | 21/2 | 12 |
| | r- r0 | : | 22 | | 41 | |
| ī | 1285 | | 14 | | 10 | 55 |
| | Fan Fan Natural | Natural, | Fan, | Fan. Fan, | Fan, | Fan, |
| | Gaseous, Gaseous, Non. Gas. | Non-gas. | Non-gas. | Non-gas. Non-gas. | Non-gas. | Slope Gaseous, |
| | Shaft, Shaft, Drift, | Drift, | Slope, | Drift, | Slope, | |
| Susquehanna Coal Co. | Wm. Penn, | Brookwood Coal Co. Stanton, | Thomas Colliery Co. Kehley Run, | Cambridge Coal Co. Cambridge. Cambridge. | Gerber and Seaman Furnace, | W. R. McTurk Coal Co. |

TABLE 1.-Operators, location of collieries, railroads, etc.

| Ruilroad to Mine | P. and R. | Lehigh Valley | Pennsylvania | P. and R. | P. and R. | P. and R. | P. and R. |
|-----------------------------------|--|---|---------------------------------------|-----------------------------|--------------------|--------------------|------------------------------|
| Post Office | Pottsville, | Centralia, | Shaft, | Hazleton, | | Shenandoah, | |
| Name of Superin- tendent | Reese Tasker, | J. M. Humphrey, | William Auman, | W. G. Thomas, | | D. R. James, | Tamaqua, |
| Post Office | Pottsville, | Wilkes-Barre, | Wilkes-Barre, | Hazleton, | Shenandoah, | | Tamaqua, |
| Name of General Superintendent | W. J. Richards, | S. D. Warriner, | R. A. Quin, | W. G. Thomas, | Daniel H. Levan, | | M. A. Gerber, |
| County | Schuylkill, | Sebuylkill, | Schuylk III, | Schuylkill, | Schuylkill, | Schuylkill | Schuylkilli, M. A. Gerber, |
| Names of Operators and Collieries | Philadelphia and Reading Coal and Iron Co. Shenandoah City, Co. See a Shenandoah Turkey Run Hammond. Bast. Best Kidge. Collector Kidge. Bast. Collector. Chleeton. Chl | Tachigh Valley Coal Co. Pracker No. 2. Pracker No. 2. Pracker No. 3. Pracker No. 3. | Susquehanna Coal Co. William Penn. | Brockwood Coal Co. Stanton, | Thomas Collify Co. | Cambridge Call Co. | Gerber and Saman Furnace. |

| P. and R. | P. and R. | P. and R. | P. and R. |
|---|---------------------------------------|---|---|
| Girardville, | Frackville, | Hazleton, | Shaft, |
| Jacob M. Holt, | R. R. Williams, | W. G. Thomas, | M. E. Jones, |
| Philadelphia, | R. R. Williams, Frackville, P. and R. | Hazleton, | Minersville, |
| schuylkill, W. R. McTurk, Philadelphia, Jacob M. Holt, Girardville, P. and R. | | Schuylkill, W. G. Thomas, Hazleton, W. G. Thomas, Hazleton, P. and R. | Schuylkill, Henry Myers, Minersville, M. E. Jones, Shaft, P. and R. |
| Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, |
| W. R. McTurk Coal Co. | Brighton Coal Co. | Raven Run Washery, | H. H. Smith and Co. Hudson washery, |

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder and dynamite used, etc.

| Number of horses and mules | 20 60 60 60 60 60 60 60 60 60 60 60 60 60 | 526 | 27.7 14.1 14.1 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15 | 204 | 99 | 12 |
|--|--|-------------|--|-------------|---------------|----------|
| Number of pounds of dynamite | 5, 688 83, 075 105, 707 18, 610 6, 680 11, 499 11, 499 62, 670 89, 511 | 414,704 | 12, 640 17, 753 7, 234 67, 222 | 1(4,849) | 24,400 | 16,250 |
| Number of kegs of powder used | 44 45,709 6,750 1,870 2,439 1,945 4,775 | 27,219 | 2,297 1,398 3,2 4 4,7,0 | 11.669 | 7,147 | 75 |
| Number of non-fatal accidents | ロアびに400111 0 | 35 | en t- en | 13 | 10 | |
| Number of fatal accidents | | 13 | L H4 | 9 | 2 | |
| Number of employes | 273 684 856 996 381 770 711 822 | 6,484 | 258 290 638 650 | 1,836 | 728 | 105 |
| Number of days worked (Totals are averages, not including washeries) | 265 273 273 274 246 246 283 283 283 283 | 260 | 256 256 256 256 | 256 | 23.8 | 291 |
| Total production of soal in tons | 110, 750 263, 862 283, 140 21, 898 21, 898 607, 606 607, 606 3, 920 146, 253 3, 36, 483 3, 36, 483 | | 137,578 207,978 172,380 353,610 | 871,546 | 277,027 | 103,514 |
| Number of tons sold to local trade and used by employes | 293 66,728 28,728 28,738 314 2,544 46 | 48,398 | 621 | 621 | 2,043 | |
| Number of tons used at collierles | 26, 138 50-454 25, 980-454 21, 614 21, 614 21, 614 21, 820 23, 820 15, 176 16, 396 16, 396 18, 316 | 270,110 | 10,041 56,274 13,173 | 50,063 | 36, 596 | 4,929 |
| Number of tons of coal shipped | 84, 319 206, 885 281, 600 272, 212 590, 808 125, 832 182, 981 182, 981 | 2.075 | 127, 537 207, 404 115, 485 340, 437 | 790, 863 | 28,28 | 2 (S) |
| County | Schuylkill, | Schuylkill, | | Schuylkill, | Sehuylkill | |
| Names of Operators and Collierles | Ph. isotslyhin and Reading Coal and Iron Co. Chinad Manmorth. East, Harmmond, Sheamadean Co. Kohmort, Nest Sheamadean, Turke, Mark Mark Mark Mark Mark Mark Mark Mark | Totals, | Parker No. 2. L. Mith Value Craft Co. | Totals, | William Penn, | Stanton, |

| 13 | 12 | 12 | 25 | - | | | 8775 |
|--------------|-------------------------------|-------------------|--------------------------------|-------------------|--------------------|-----------------|---------------|
| 3,600 | 11,250 | 22,600 | 18,100 | | 525 | | 616,278 |
| 01-2 | 1,417 | 160 | 450 | | | | 48,907 |
| Ħ | 61 | | | | | | 65 |
| 200 | | | | | | | 27 |
| 200 | 169 | 135 | 227 | 95 | 31 | 1 10 | 10.062 |
| 252 | 264 | 268 | 261 | 274 | 161 | 39 | 261 |
| - | 81,235 | 64,308 | 118,382 | 78,887 | 23,822 | 9,952 | 4, 132, 015 |
| 3,946 | 1, 289 | | 7,817 | | 249 | | 64,463 |
| 10,326 | 2,204 | 4,733 | 3,690 | 7,752 | 1,123 | 479 | 422, 004 |
| 92, 118 | 77,642 | 59,575 | 106,875 | 71,135 | 22,460 | 9,473 | 3,645,518 |
| Schuylkill, | Sehuylkill | Schuylkill, | Sehuylkill, | Sehuylkill, | Schuylkill, | Schuylkill, | |
| Kehley Run,, | Cambridge, Cambridge Coal Co. | Gerber and Seaman | Girard, W. R. M. Turk Coal Co. | Brighton washery. | Raven Run washery. | Hudson washery, | Grand totals. |

TABLE 2.—Recapitulation

TABLE 2.-PART 2.

| | REPORT OF THE | DEPARTMENT OF I |
|-------------------|-------------------------------|--|
| | Number of electric dynamos | |
| | Quantity delivered to surface | 32, 670 3, 370 880 950 150 1,000 |
| əjr | unim req smolleg ni vitosqe') | 34, 260 8, 710 1, 500 1, 100 47, 430 |
| Suin | Number of pumps delive | 601 62 1 4 |
| | Total horse power | 19, 408 11, 5855 1, 58 |
| ils 1 | Number of steam engines o | 11. 81. 11. 11. 11. 11. 11. 11. 11. 11. |
| ves. | Flectric | |
| Locomotives. | | 4 |
| Lo | Steam | © ⊕ ⊟ 31 |
| | Total herse power | 15 810 6,079 1,550 1,340 |
| Boilers | 19Wog erioH | 410 10,54,4 10,57,0 10 |
| Number of Boilers | Tubular | 100 100 100 100 100 100 100 100 100 100 |
| Numl | Horse power | 1,340 679 679 50 50 150 150 150 150 |
| | Cylindrical | क्ता संश्रम डि. |
| | County | Schuylkill |
| | Names of Operators | Philadelphia and Reading Coal and Iron Co., Lehigh Valley Coal Co., Susquehanna Coal Co., Thorness Collect Co., Thomas Collect Co., Gerber and Seman. W. R. McTurk Coal Co., Brighten Coal Co., Raven Run Coal |

TABLE 3.-Number of each class of employes inside and outside of mines

| | Grand total inside and outside | 684 684 684 684 684 684 684 684 684 684 | 6,484 | 258 290 650 650 | 1,836 | 727 |
|---------|--|--|---------|--|---------|----------------------|
| | apistuo Intol' | 190 277 277 302 302 303 171 171 171 | 446 | 432 432 59 | ers | 950 |
| | All other employes | 104 104 105 105 105 105 105 105 105 105 105 105 | 316 2, | 25 25 67 | 400 | 107 |
| | Вооккееретѕ ала съткѕ | H 00 60 44 H 10 H 60 60 61 | 25 1. | ====== | oc | 9 |
| | Slate pickers (men) | 36 19 23 36 31 31 31 31 31 31 31 31 31 31 31 31 31 | 200 | | | 12 |
| Outside | Slate pickers (boys) | 23.1 101 115 115 88 89 | 569 | 10 | 10 | F |
| no | Engineers and fremen | 21 22 22 22 24 24 25 25 24 25 25 25 25 25 25 25 25 25 25 25 25 25 | 238 | 10.00 | 123 | 83 |
| | Blacksmiths and carpenters | 100112000 00 00 00 00 00 00 00 00 00 00 00 00 | 17 | गुरुक कर | 000 | 24 |
| | Foremen | H 31 01 01 H 31 H 61 H 61 H | 16 | H 01- | | - |
| | Superintendents | | 10 | - | - | - |
| | obisal latoT | 83 258 258 258 258 258 258 258 258 258 258 | 4,038 | 215 276 206 551 | 1,228 | 478 |
| | səyəlqmə rəhbə IIA | 125 88 88 88 125 86 126 136 136 136 136 136 136 136 136 136 13 | 795 | 69 81 58 249 | 457 | 9 |
| | Сотрану теп | 20111111111111111111111111111111111111 | 118 | | | 116 |
| | Leading and a second a second and क्याचलललावावा | 24 | 44701 | 14 | t- |
| Inside | 1)cor boys and helpers | ಹಿವ್ಯಾಜನಾಗಲ್ಲಿ 12 | 9.1 | 0001- | 11 | c) |
| In | Drive:s and runners | 22 E 3 5 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 569 | 13 13 34 34 | 9.5 | 62 |
| | Miners' laborers | 208 105 105 106 106 106 106 106 106 106 106 106 106 | 1.088 | 34 S0 172 | 326 | 7. |
| | stəniM | ###################################### | 116 | 8888 | 112 | 167 |
| | Fire bosses and assistants | <u> </u> | 10 | चित्र च च १० | E | 9 |
| | Assistant mine foremen | . ===================================== | 9 | | *7 | |
| li | Mine foremen | | = | | 10 | - |
| | County | Schuylkilli | | Schuylkill, | | Schuylkill, |
| | Names of Operators and Collierie | Philadelphia and Reading Coal and from Co. Great Mammorth Bast. Hammend Sheamthead City, Kohinon, Turkey Kun, Barn Ridge, Gilberten, Draber, | Totals, | Lebigh Valley Coal Co. Packer No. 2. Packer No. 3. Packer No. 4. Packer No. 5. | Totals, | Susquehanna Coal Co. |

TABLE 3.- Continued

| | Grand total inside and outside | 105 | 200 | 169 | 135 | === | === | 31 | 11 120 | 10,062 |
|---------|-----------------------------------|-----------------------------|------------------------------------|--------------------|-------------------------------|-----------------------|-------------------|--------------------|---------------------|---------------|
| | Total outside | 19 | 123 | 200 | 62 | 132 | 1 2 | 31 18 | 11 12 | 924 |
| | All other employes | 333 | 49 | 8 | 30 | fo | 57 | 16 | 3 15 | 134 3. |
| | Вооккеерета алд сleтка | C1 | 67 | ~ | | 01 | - | | | 50 2. |
| side | Slate pickers (men) | | 16 | 63 | | |). es | # - - | 4 | 240 |
| Outside | Slate pickers boys) | 18 | 23 | 121 | 56 | 14 | 16 | 6: | 9 | 098 |
| | Engineers and firemen | 00 | 52 | 00 | 00 | - | 2 | 000 | 6 | 409 |
| | Blacksmiths and carpenters | 63 | 118 | 60 | 2 | 10 | 11 00 | - | 63 | 188 |
| | Готетел | - | - | | - | - | - | - | - | 29 1 |
| | Superintendents | - | - | | - | - | - | - | - | 14 |
| | Total Inside | en en | 77 | 111 | 73 | 9.5 | | | | 6,138 |
| | All other remployes | 10 | | 9 | 60 | | | | | 1,277 |
| | Company men | 12 | = | 15 | 00 | 26 | Ī | ., | | 906 |
| | - Lumpmen | | 60 | | C1 | 1 : ! | | | : | 20 |
| Inside | Door boys and helpers | | | | 124 | | | | | |
| Ir | Stennur bas stevita | 1 | 446 | | | | | | | |
| | Miners' laborers | 9 | 30 | 63 | 61 | 16 | | | | 1,621 |
| | Miners | t- | 26 | 07 | 53 | 7 | | | | 1,600 |
| | Fire bosses and assistants | : | | | - | | | | | 80 1 |
| | Assistant mine foremen | - 1 | : | - | 1 : | | | | | = |
| | Mine foremen | - | | 61 | - | - | | | : | 53 |
| | County | Schuylkill, | Sehuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuy'kill, | Schuylkill, | |
| | Names of Operators and Collieries | Brookwood Coal Co. Stanton, | Thomas Colliery Co. Kehley Run, | Cambridge Coal Co. | Gerber and Seaman Furnace, | W. R. McTurk Coal Co. | Brighton Coal Co. | Raven Run Coal Co. | H. H. Smith and Co. | Grand totals, |

TABLE 3.—Recapitulation

| - | oblatuo bus oblani latot busati | 6,484 | 1,836 | 10,062 |
|---------|---------------------------------|--------------------------------|--|---------|
| | ebistuo IstoT | 2,446 | 809 | 3,924 |
| Outside | All other employes | 1,316 | 400 | 2,134 |
| | Hookkeepers and clerks | 22 | 17 | S |
| | Slate pickers (men) | 200 | 40 | 240 |
| | Slate pickers (boys) | 569 | 216 | 093 |
| | Engineers and firemen | 208 | 51.68 | 400 |
| | Blacksmiths and carpenters | Li | 8.8 | 188 |
| | Ротете | 16 | প <i>হ</i> ে, | 66 |
| | Superintendents | 7'3 | S | 7 |
| | abiani IntoT | 4,038 | 1,298 | 6,138 |
| | sayolqma tadio IIA | 795 | 457 | 1,277 |
| | Company men | 718 | 158 | 9 6 |
| | Битртеп | - 54 | 12 | 20 |
| ide | Door boys and helpers | 66 | 17 | 124 |
| Inside | Drivers and runners | 697 | 101 | 446 |
| | Miners' laborers | 1,088 | 326 | 1,621 |
| | Miners | 974 | 312 | 1,600 |
| | Fire bosses and assistants | 17. | 1-0 | . 08. |
| | Assistant mine foremen | 9 | 77 | = |
| | nemorol eniM | = | F2 L= | 83 |
| | County | | Schuylkill, | |
| | Names of Operators | Philadelphia and Reading Coall | and Iron Co., Lehigh Valley Coal Co., Miscellaneous companies, | Tctals, |

TABLE 3.—PART 2.

| | Total | 28 28 28 28 28 28 28 28 28 28 28 28 28 2 | 99999 | 2.38 | - 8 | 252 | 198 | 268 | 261 |
|----------------------------------|-----------------------------------|--|---|---------------|-------------|-------------|-------------------------------|--------------------------------|-------------------------------|
| |) эвсешрел. | สสสสสสสสส | 1 81818181 | 6 | F 27 | 1 12 | 05 | 16 | 61 |
| | Zovember | 49432222×28 | 2223 | - 6 | 65 | 13 | ē1 | 12 | 81 |
| | 19deta() | និត្តមានមាន | : : :::::::::::::::::::::::::::::::::: | 87 | 252 | bî | 19 | 61 | 61 |
| reaker | September | ลีลีลีลีลีลีลีลี | 81818181 | | 83 | \$1 \$0 | 51 | 7 83 | 61 |
| ed in B | Augua | ลลลลอเลอ | | 11 = | 5 | ន | - Fi | 63 | 200 |
| Number of Days Worked in Breaker | . Aut | 828,9222222 | , ភិត់គិត | | ន | 91 | h = | ्र । हा | 110 |
| of Day | oung | តន្តអត្តត្រូវ គឺ គឺ គឺ គឺ គឺ គឺ គឺ គឺ គឺ គឺ គឺ គឺ គឺ | 91919191 1 | 31 | 81 | 1 22 | 11 85 | - - - - - - | 1 22 |
| Number | May | <u> </u> | 3355 | 63 | 56 | 53 | 9.7 | 98 | 95 |
| | April | สตสสลสลอ | 81818181 | 18 | 71 | 81 | 33 | \$1 | 51 |
| | Магећ | តីពិទីពិតិពិតិពិតិ | 21212121 | 17 | 1 21 | 95 | 96 | 21 | 10 |
| | February. | ##8################################### | 2222 | 8 | 31 | 18 | 21 | হা | |
| | January | 29592255 | ลิลิลิลิ | 18 | 51 | · × | 91 | 6.1 | 91 |
| | County | Schuylkill, | Schuylkill, | Schuy!kill, | Schuylkill, | Sebuylkill, | Schuylkill, | Sehuylkill, | Schuylkill, |
| | Names of Operators and Collierles | Philadelphia and Beading Coal and from Co. Gread Matmoth, Bast, Ba | Packer No. 2. Packer No. 3. Packer No. 4. Packer No. 4. Packer No. 4. Packer No. 5. Packer No. 5. Packer No. 5. Packer No. 5. | William Pern. | Branton, | Kehley Run, | Cambridge, Cambridge Coal Co. | Furnace, | Girard, W. R. McTurk coal Co. |

TABLE 4.-Fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Killed by fall of slate. Killed by fall of rock. Killed by fall of coal. Fedually injured by fall of top rock. Died February 2. He was passing behind a fireman and was struck by scraper handle. Died Feb | nuary & Outside, Instantly killed; caught in a screen pinlon, Outside, Squeezed between cars and cribbing. Died February 18, Outside, February 18, Outside, February 18, Outside, | February 36. Killed by a slide of coal at strippings. Outside, we still of coal. Killed by fall of coal. Killed to eaught in rope wheel. Outside. Killed by eavlosion of pswder. Farally injured by explosion of powder. | | Died May 14. Outside. Fatally highed: fed dawn manway. Fatally burned by poweler. Killed: triped fell on him. Outside. Killed by fall of eval. Killed by fall of eval. Killed by fall of eval. Killed by fall of eval. Killed by fall of eval. Killed by fall of eval. Killed by fall of eval. Killed by fall of eval. Fatally injured: squeezed between cars and preps. |
|---------------------------------------|--|---|--|--|--|
| County | | | Schuylkill, | | |
| Name of Mine | Packer No. 2, Packer No. 4, Kohinoor | Chilberton, Bear Ridge, | Packer No. 5 West Shenandoah Hammond, Shenandoah City, Shenandoah City, | Draper, Pack r No. 5, Pack r No. 5, West Shenandoah West Shenandoah West Shenandoah | William Penn. Turkey Run. Turkey Run. Railiam Penn. Rast Shenandoah Turkey Run. Packer No. 5. |
| Number of orphans | e : : : = = | | 21 | | 6415-1 10 |
| swobiw to redumin | | | E E E | 11010 | |
| 9lgnis to beitreM | Z WWWZ | vi vi vi | | KENERS S | SERVINEN |
| A 86 | ###################################### | 18 30 | 9 8245 | # # # # # # # # # # # # # # # # # # # | :::::::::::::::::::::::::::::::::::::: |
| поізваиээО | Miner, Laborer, Miner, Miner, Laborer, | Jig runner,. Driver, Miner, | Miner, Slate picker, Miner, Laborer, | Door bay Driver. Lahorer, Miner, Miner. | Miner, Miner, Machinist, Labore r, Miner, Miner, Miner, Miner, Miner, |
| Zationality | American, Irish, American, Lithuanian,. | Hungarian, American, Polish, | Irish, Pefish English, Lithuanian,. | American, Greek, Lithuanian, Folish | German, Russian, American, American, Picluanian, Piclish, Lithuanian, Russian, |
| Name of Person | John Whalen. Patrick bonahue. Daniel James, Thomas Miller, Daniel Britton, | Roman Wassel, | Darby Howe, Andrew Whileofsky, Edward Allen, Edward Allen, Joseph Patritus, John Vilvansky, | William Brennan, John Price Sinco Gerousky Lowis Idocawage, John Crwabock, John Gibson, | August Temaitis, Lemmiek Sokaski, Edward Coakhin, William Wink, Simon Cordiek, Mike Sorabeski, Pierce Botetus, Alex Punsavage, |
| , | 25 to 6 | s E E | ន នាត== | 27×551 | 52841588 |
| tnobioos lo elsell | Jan. Feb. | | March | June. | Oct. |

TABLE 5.-Non-fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Leg broken. A plece of rock rolled against him. Rake sprained and bruised by fall of coal. Rake sprained and bruised by fall of coal. Knee cap knocked off. Slipped off a plece of coal. Severely injured. Rock rolled on him. Outside. Head and hands burned by explosion of Ray and hands burned by explosion of Head and hands burned by explosion of Head and hands burned by explosion of Head et and squeezed about body by fall of coal. Sliphtly burned by Ray Sliphtly burned by Ray Burned by Early with the Uncoupling cars. Leg cut off while uncoupling cars. | Face that we set up prenature blast. Leg fractured; leg fell on him. Leg fractured; leg fell on him. Leg fractured wille descending shaft. Face and hands burned by explosion of gas. Face and hands burned by explosion of gas. Hip dislocated by fall of coal. Hip dislocated by fall of coal. Ranked about body and hand cut by premature blast. Teg fractured by coal relling on it. Leg cut off. Bumped by carrs. Collar bone broken. Fell down chute. Outside. |
|---------------------------------------|--|--|
| County | Schuylkill, | Schuylkill, |
| Name of Mine | Cambridge, Hummond, West Shenandoah, Rohmor, Bast, Shenandoah City, Shenandoah City, Praper Hummond, Frickton washery, Pracker No. 3, Pracker No. 4, Pracker No. 5, Pracker No. 6, Pracker No. 7, Packer No. 3 Kelley Run. Nelliam Penn, Draper, William Penn, Hammond. Flammond. Flammond. Packer No. 5, Packer No. 4, Bast. Gilberton, |
| Married or single | MENNE ROSE E O O EEO E | ENN EENNAE ENNEE |
| ₩. A. g.e. | | 288 213 213 214 213 214 215 215 215 215 215 215 215 215 215 215 |
| Occupation | | Miner, Mi |
| Vationality | Russian, Lithuanian, Polish, Lithuanian, Italian, Welsh, Welsh, Lithuanian Lithuanian Polish, Polish, Polish, Russian, American, Lithuanian, Lithuanian, Lithuanian, Lithuanian, Lithuanian, Lithuanian, Lithuanian, Lithuanian, Lithuanian, Polish, Polish, Polish, Lithuanian, Lithua |
| Name of Person | | Joseph Gulineky, John Dapton, Martin Martinol Martin Martinol Martin Martinol Martinol George Kunchms George Micken Fernik Schultz, Fernik Schultz, Joseph Mormus, Joseph Mormus, Joseph Mormus, John Osuald |
| Date of accident | Jan. 4 25 29 28 30 10 17 17 March 13 28 April 15 8 13 13 13 11 17 17 17 17 17 17 17 17 17 17 17 17 | May 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |

| Collar bone broken. Was caught between | Leg broken by collar falling on him. Compound fracture of arm. Fell off log | Face and hands burned by gas. Face and hands burned by gas. Face and hands burned by gas. Face and hands burned by gas. Ribs broken. Squeezed between car and | Severely wounded inside by premature | Fulsast. Fines cut off by circular saw. Outside. Bruised back by rock falling off dumper. | Severely injured around body by fall of | Leg fractured. He was cutting out timber | Back and head injured by premature | Hip dislocated and otherwise injured. He | was caught in rope wheel. Outside, Wrist broken. He slipped and fell. Out- | HENNE | Slightly burned by gas, Slightly burned by gas, Shoulder blade broken by fall of slate. Hand crushed and broken by timbers. One leg cut off and the other badly crushed. Fell under car on plane. Out- | | Arm of the structure of | Arm cut off and collar bone broken. Chain broke on slope and cars struck | him on bottom. Finger cut and hand crushed by plece of | Fractured door frame. Squeezed between | Slightly burned by explosion of gas. Fractured pelvis bone. Crushed against battery. |
|--|---|---|--------------------------------------|---|---|--|------------------------------------|--|---|--|--|-------------|--|--|--|--|--|
| _ | | | | | | | | | | Schuylkill, | | | | | | | |
| Packer No. 4, | Bast, | Shenandoah City,. Draper, Draper, William Penn, | William Penn, | Shenandoah City,. Turkey Run, | Packer No. 5, | Kohinoor, | Shenandoah City,. | West Shenandoah, | William Penn, | Packer No. 5, Bast, | Draper, Packer No. 4, Kohinoor, Hammond, Girard Mammoth, | Bast, | M. Bast, | Packer No. 4, | Bear Ridge, | William Penn, | William Penn, Packer No. 4, |
| ω | ĭvi ⊠ | KKKW | M. | zi X | M | υż | ω | ωį | 郊 | ww.KKKw | യ്⊠യ്യ്യ് | M. | | υi | M. | M. | z z |
| . 25 | . 36 | 8888 | . 23 | 8:3 | | & | . 27 | 14 | . 17 | | | . 83 | . 38 | . 18 | . 38 | . 27 | . 45 |
| Loco. helper, | Laborer, | Miner, Miner, Miner, Driver, | Miner, | Driver, | Miner, | Laborer, | Miner, | Slate picker, | Spragger, | Laborer, Miner, Driver boss, Miner, Miner, | Miner, Miner, Laborer, Driver, Topman, | Repairman, | Repairman, | Civil engineer,. | Repairman, | Driver, | Fan boy, 17 Miner, 45 |
| American, | German, | Polish, Lithuanian, Lithuanian, | Lithuanian, | English, | Polish, | Lithuanian, | Lithuanian, | American, | American, | American, American, Austrian, Austrian, Austrian, Rustrian, | Lithuanian, Russian, Lithuanian, Irish, | American, | American, | American, | Irish, | Austrian, | American, Litbuanian, |
| Martin Coyle, | Joseph Lidicote, | Andrew Nowitsky, Peter Bendick, Jacob Bendick, George Streke, | Martin Remon, | Harry Feist, Gregavio Talevico, | Anth, Brasitus, | Joseph Sucitus, | Joseph N. Savage, | John Gomey, | Richard Lloyd, | John Curren, Leviy Shuler, Walter McCulte, Anty Kusser, Simon Karsers, Simon Karensky, | Joseph Oviges, Michael Austruskie, Mike Buscavage, Thomas Eiley, Edward Barrett, | John Casey, | Joseph Boschie, | Joseph Fox, | Michael Goff | Stephen Pavolko, | Richard Lloyd, |
| 12 | 33 ∞ | 2229 | 23 | 22.83 | 00 | 13 | 16 | 18 | 18 | 18888° | 11 13 13 13 13 | 9 | 9 | ţ | 14 | 667 | 29 |
| July | Aug. | Sept. | | | Oct. | | | | | Nov. | | Dec. | | | | | |

FATAL ACCIDENTS

Falls of Coal, Slate and Roof.

Packer No. 2, January 3, John Whalen, miner, was instantly killed by a fall of slate. He was dressing down top slate after firing, when a piece fell upon him. Unavoidable.

Packer No. 4, January 9, Patrick Donahue, laborer, was killed in West Buck gangway in third level, by a fall of rock. Unavoidable.

Buck Mountain Seam, Kohinoor, January 18, Daniel James,

miner, was killed by a fall of coal.

Turkey Run Colliery, January 21, Thomas Miller, miner, was fatally injured by a fall of top rock. He died February 2 in the hospital.

West Shenandoah colliery, March 23, Andrew Whilcofsky, miner, was killed at East Bottom Split, by a fall of coal. He was robbing back. Cause was the lack of good mining experience.

West Shenandoh Colliery, June 8, Simon Gerousky, laborer, was

killed by a fall of coal.

West Shenandoah Colliery, December 1, Simon Cordick, miner, was fatally injured by a fall of coal. He was in the act of barring down a large piece of loose coal when it fell and crushed him. He died in the Miners' Hospital December 3. Avoidable.

Turkey Run colliery, December 19, Mike Socaloski, miner, was instantly killed by a fall of rock. He and his butty were making room for a set of relief timber, when a heavy piece of rock crushed down the surrounding timber, and caught him under the fall. Unavoidable.

East Mammoth No. 3 counter, Packer No. 5, December 23, Pierce Rototus, laborer, was caught under a fall of coal on the night shift. He was fastened by timber in such a manner as to be almost uninjured. The rescurers could talk to him until 7 o'clock in the morning when they were close enough to take him by the hand. Another rush of coal came, driving the rescuers back, and smothered him. Unavoidable.

Mine Cars

Packer No. 5, June 2, John Price, driver, was killed by car running over him.

Packer No. 5, December 29, Alex Dunsavage, miner, was fatally injured by being squeezed between cars. He was standing outside the loaded trip of cars, and it is supposed he attempted to jump on what he thought was the last car as the trip passed, but there was another car behind that caught him. He died at Miners' Hospital, at Fountain Springs on the 31st. Carelessness.

Explosions of Gas

Shenandoah City colliery, February 17, John Shebo, miner, was fatally injured by explosion of gas and died on the 26th in the hospital.

Explosions of Powder and Dynamite

Shenandoah City colliery, May 11, Joseph Patritus, miner, was killed by an explosion of powder.

Shenandoah City colliery, May 11, John Vlivansky, laborer, was fatally injured by an explosion of powder, and died on the 12th.

Turkey Run colliery, August 21, Dommick Sokaski, miner, was fatally burned while filling a cartridge, with a lamp on his head, the cartridge exploded. He died from his injuries. Carelessness.

Premature Blasts

Draper colliery, June 21, Lewis Idocavage, miner, was killed by a blast. The cause is unknown.

West Shenandoah colliery, June 29, John Covalock, miner, was fatally injured. He tamped a tophole, and put in a squib, and was in the act of tamping a bottom hole, when his lamp came in contact with the squib in the upper hole. He died July 1. Carelessness.

Falling into Shafts, Slopes, Etc.

Gilberton colliery, May 13, William Brennan, doorboy, was killed. A wreck had taken place on the slope at Draper colliery and he with some others walked through the basin tunnel connecting Draper and Gilberton collieries. They got to the 4th level of the shaft, and Brennan was in the act of signaling the engineer when he fell down the shaft.

William Penn colliery, August 19, August Tomaitis, miner, was fatally injured. He fell down the manway and died on the 20th.

Miscellaneous

Kohinoor, February 6, Daniel Britton, laborer, was struck by a scraper handle. He was passing behind one of the firemen who was cleaning the fire, and as he pulled back the scraper, the handle struck Britton in the abdomen. He died on the 8th.

Packer No. 5, February 20, Darby Howe, miner, was killed by a

slide of coal at strippings.

William Penn colliery, August 29, Edward Coughlin, machinist, was killed. He had raised a piece of machinery, with a block and tackle, and was in the act of backing a wagon underneath, when the wagon struck the tripod which collapsed and fell on him, killing him instantly.

Cars, Outside

Bear Ridge colliery, February 15, David Evans, driver, was fatally injured. He was squeezed between cars and cribbing. He died on the 18th. Carelessness.

West Shenandoah colliery, August 11, John Gibson, dumpman, was fatally injured. He was riding on a bumper to tip of dirt bank, and was thrown over the dumper. He died on the 14th.

Machinery, Outside

Gilberton colliery, February 8, Roman Wassel, jig runner, was instantly killed. He was caught in a screen pinion in breaker. He was away from his regular place of work, and had no business to be where accident occurred.

Hammond colliery, March 29, Edward Allen, slatepicker, was killed. Some breaker machinery broke down, and he left his place of work and stood on a platform above the breaker engine, looking at the breaker engineer as he started the engine. When he started to return to his place of work he was caught by a rope and was taken around a wheel. Breaker machinery well fenced in. Avoidable.

Bast colliery, October 5, William Wink, laborer, was caught in the rope wheel. His duty was to oil the machinery at noon hour, but he was seen with the oil can 20 minutes before noon. He approached the sheave wheel from the wrong side. It would have been impossible to fall into the wheel had he been on the proper side. The accident was caused by carelessness.

CONDITION OF COLLIERIES

PHILADELPHIA AND READING COAL AND IRON COMPANY

Girard Mammoth.—Ventilation fair, drainage fair, condition as to safety fair.

Bast.—Ventilation good, drainage good, condition as to safety fair.

Hammond.—Ventilation good, drainage good, condition as to safety fair.

Shenandoah City.—Ventilation good, drainage good, condition as to safety good.

Kohinoor.—Ventilation good, drainage good, condition as to safety good.

West Shenandoah.—Ventilation fair, drainage fair, condition as to safety good.

Turkey Run.—Ventilation fair, drainage fair, condition as to safety fair.

Bear Ridge.—Ventilation good, drainage good, condition as to safety fair.

Gilberton.—Ventilation fair, drainage good, condition as to safety

Draper.—Ventilation good, drainage good, condition as to safety good.

Packer No. 2.—Ventilation fair, drainage good, condition as to safety good.

Packer No. 3.—Ventilation fair, drainage good, condition as to safety good.

Packer No. 4.—Ventilation good, drainage fair, condition as to safety good.

Packer No. 5.--Ventilation good, drainage good, condition as to safety fair.

SUSQUEHANNA COAL COMPANY

William Penn.—Ventilation fair, drainage fair, condition as to safety good.

THOMAS COLLIERY COMPANY

Kehley Run,-Ventilation good, drainage bad, condition as to safety good.

CAMBRIDGE COAL COMPANY

Cambridge.—Ventilation fair, drainage fair, condition as to safety good.

GERBER AND SEAMAN

Furnace.—Ventilation fair, drainage fair, condition as to safety fair.

IMPROVEMENTS

A great many improvements have been made in this district by all the companies during the year, both inside and outside, but not having complete reports, I can not give details.

Mine Foremen's Examinations

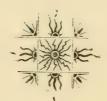
The examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in Shenandoah in May. The board of examiners was William Stein, Mine Inspector; William Auman, Superintendent and Geo. H. Young and Joseph Corby, miners. The following is a list of the successful applicants:

Mine Foremen

M. J. McLaughlin, Isaac M. Adams, Idris Davis, Newton Fritz, August Hess, John O'Brien, Thomas Maley, Henry Whittington, Peter McHale, John Herrity, P. J. Houston.

Assistant Mine Foremen

Edward J. Roberts, Thomas Durkin.



Eleventh District

SCHUYLKILL COUNTY

Mahanoy City, Pa., February 22, 1906.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my annual report as Inspector of Mines of the Eleventh Authracite District, for the year 1905.

The tables contain the statistics relative to production, number of employes, days worked, accidents, etc. The condition of the col-

lieries is also reported.

Respectfully submitted,

P. C. FENTON, Inspector.

SUMMARY OF STATISTICS

| Number of collieries, | 14 |
|--|-----------|
| Number of mines, | 18 |
| Number of mines in operation, | 18 |
| Number of tons of coal shipped to market, | 3,645,097 |
| Number of tons used at mines for steam and heat, | 482,133 |
| Number of tons sold to local trade and used by employes, | 55,236 |
| Number of tons produced, | 4,182,466 |
| Number of persons employed inside of mines, | 7,148 |
| Number of persons employed outside, | 3,643 |
| Number of fatal accidents inside of mines, | 47 |
| Number of fatal accidents outside, | 3 |
| Number of non-fatal accidents inside of mines, | 54 |
| Number of non-fatal accidents outside, | 4 |
| Number of tons of coal produced per fatal accident inside, | 88,989 |
| Number of persons employed per fatal accident inside, | 152 |
| Number of persons employed per fatal accident outside,. | 1,214 |
| Number of persons employed per non-fatal accident inside, | 132 |
| Number of persons employed per non-fatal accident out- | 1.,2 |
| side, | 911 |
| Number of wives made widows, | 11 |
| Number of children orphaned, | - 41 |
| Number of steam locomotives used inside of mines, | 1 |
| Number of steam locomotives used outside, | 15 |
| Number of compressed air locomotives used inside, | 15 |
| Number of electric motors used inside, | 3 |
| Number of fans in use, | 21 |
| Number of gaseous mines in operation, | 18 |
| 2 gaseous mines in operation, | 4 |

TABLE A

PRODUCTION OF COAL

| Names of Operators | Tons |
|--|-------------------------------|
| Philadelphia and Reading Coal and Iron Company, Lentz and Company, Lehigh Valley Coal Company, | 3,450,915 $405,339$ $236,653$ |
| Silver Brook Coal Company, | 80,995 |
| Total, = Preduction by Counties | 4,182,466 |
| Schuylkill, | 4,182,466 |

TABLE B. Fatal and non-fatal aecidents inside and outside of mines; number of tons of coal produced per aecident; number of

| - , | 1 | | | |
|--|---------------------|--|--|-----------------------------------|
| | əpis | the sevel-dime to redund and the first state out. | 1,022 | 911 |
| , | abis | ni seyolqme to radmuZ trashioos latal-non raj | 155 | 132 |
| | əbis | Yunber of employes cut | 1, 023 | 1,214 |
| | opis | ni seyelqme to tadmiz trableog land req | 1312313 | 153 |
| | s | Total number of emily | 80881 | 1 0, 791 |
| | obl | Zumber of employes outs | 2.0.5 1.0.5 1.1.5 1.4.4 | 3,643 |
| nt | 6 | Signi sayolqma lo radimuX | 2, 88. 169. 168. 168. 168. 168. 168. 168. | 7,148 |
| r accide | Loot. | Psoulord Igns to snoT Mism in adverse father than | 11588 11588 | 11, 453 |
| persons employed; number employed per accident | In I. | fe suborq Isos lo snoT estant massivas Innd | 60, NIS F1, 2855 S9, 1655 NG, 9855 | 88,989 |
| lduua . | idents | Tetal? | ÷ & 1- 7 | 80.2 |
| uminer | Non-Fatal Aecidents | ebistu() | | 44 |
| yed; n | Non-F | - PhisnI | × € (~ 11) | 70 |
| emplo | ents | Total | 유가하다 | â |
| Troms | Fatal Accidents | 9bishiO | eq : | ** |
| In | Fats | fizal | Y 44- | 12 |
| | | Names of Operators | Pulladelphia and Reading Coal and Iron Co., Lentze and Co., Lentze Valley Coal Co., Silver Frenk Cail Co., Crystal Run Coal Co., | Totals and averages for district, |

TABLE C.-Classification of Fatal Accidents Inside and Outside of Mines

| | | | | | | - Not seems on | М | cnth | ıs | | | | | |
|---|---|--------------------|-------|----------------------------|--------------------------|----------------|------|--------|----------------------------|----------------|------------|----------------|------------------------------|--|
| Causes of Accidents Inside | | February | March | April | May | June | July | August | September | October | November | December | Total | Percentages |
| Falls of coal, Falls of slate, Falls of roof, Mine cars, Explosions of gas and dust Explosions of powder and dynamite, Premature blasts, Falling into shafts, Falling into slopes, etc. Crushed at batteries, Totals, | 1 | 1 | | 2 2 2 5 == | 3 1 1 6 | 1 | 1 | i | 2 1 3 3 1 1 | 1 3 | 1 | 1 1 2 1 1 6 == | 11 4 1 10 5 3 8 1 2 2 47 == | 23.40 8.51 2.13 21.28 10.64 6.38 17.02 2.12 4.26 4.26 |
| | 5 | 1 1 -2 -4 | 1 | | | 1 1 3 | | 1 | 11 | 3 | ····· 1 | | $\frac{1}{2}$ $\frac{3}{50}$ | 33.33 67.67 100 |

TABLE D.-Classification of Non-fatal Accidents Inside and Outside of Mines

| | | | | | | | M | onth | ıs | | | | | |
|---|---|----------|-------|--------|---------|------|--------|--------|-----------|-------------------|----------|-------------|---|--|
| Causes of Accidents Inside | | February | March | April | May | June | July | August | September | October | November | December | Total | Percentages |
| Mine cars, Explosions of gas and dust, Explosions of powder and dynamite, | 2 | 1 | 1 2 | 1 5 == | ····· 2 | | 3 1 | | 3 7 | 1 1 1 1 1 1 5 = 5 | 1 | 1 1 6 == | 13 2 1 11 6 12 4 2 1 1 1 1 | 24.08 3.71 1.85 20.37 11.11 22.22 7.41 3.70 1.85 1.85 |
| Causes of Accidents Outside Cars Wachinery, Miscellaneous, Totals, | 1 | | 1 | | | 1 | | | | | | 1 -1 | 1 2 1 4 | 25.00 50.00 25.00 |
| Grand totals inside and outside, | 3 | 2 | - 5 | 5 | - 5 | -6 | 5 | 2 | 10 | - 5 | 3 | 7 | 58 | |

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

| | | | | | | | Iontl | hs | | | | | |
|---|---------|----------|-------|-------|-----|------|-------|--------|------------------|---------|----------|----------|-------------------------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Total |
| Miners, Inside Miners' laborers, Privers and runners, Company men All other employes, | | ···· | | | 4 2 | | 1 | 1 | 3 5 1 2 | 3 | 1 | 1 | 26 13 4 3 1 |
| Totals, Outside All other employes, Totals, | | 2 | = + | | | 1 | === | === | 11 | 3 === | === | === | 47 |

 ${\bf TABLE} \ {\bf F.-Occupations} \ {\bf of} \ {\bf Persons} \ {\bf Injured} \ {\bf Inside} \ {\bf and} \ {\bf Outside} \ {\bf of} \ {\bf Mines}$

| | 1 | | | | | | | | | | | | == |
|--|---------|----------|-------|-------|--------------------------|------|-----------------|--------|-----------|---------|-----------|----------|--|
| | | | | | | M | Iont: | hs | | | | | |
| | January | Pebruary | March | April | May | June | July | August | September | October | November | December | Total |
| Inside Fire hosses and assistants, Miners, Miners laborers, Horar's and runners, Horar's and runners, Company men, All other employes, Totals, | 2 | 2 | 4 | | 2 1 1 1 | 1 | 4 1 5 | 1 1 | 10 | 1 2 1 | 3 | 1 3 1 1 | 3 33 11 2 2 2 2 1 54 |
| Outside Slatepickers (boye). All other employes, | 1 | | 1 | 1 | | 1 | | | | | | 1 | 1 3 |
| Totals, | 1 | | 1 | | | 1 | | | | | | 1 | 4 |
| Grand totals inside and outside, | 2 | 2 | 5 | 5 | ñ | в | 5 | 2 | 10 | - 5 | 8 | 7 | 58 |

TABLE G .- Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

| | | | | P-1 | | M | [ont] | hs - | | | | | |
|---|---------|----------|-------|-------|-------|-------|-------|--------|-----------|---------|----------|----------|-------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Total |
| American, Enclish, Irish, German, Polish, Hungarian, Italian, Lithuanian, | 3 1 | 2 | 2 1 | 2 | 5 | 1 1 1 | 1 | 1 | 1 3 | 1 | 1 | 1 1 4 | 2 |
| Totals, | 5 | 4 | 4 | 5 | 6 | 3 | 1 | 1 | 11 | 3 | 1 | 6 | _5 |

TABLE H.-Nationality of Persons Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|---|---------|----------|-------|-------|-----|------------|------|--------|-------------|---------|----------|----------|-------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Total |
| American, Welsh, Scotch, Polish, Hungarian, Italian, | | | 1 4 | 1 | 4 | 2 2 | 1 4 | 1 | 2 1 4 | 1 3 | 1 | 1 1 | 2 |
| ithuanian, Totals, | | 2 2 | 5 | 3 5 | 1 5 | 2 6 | 5 | 2 | 10 | 5 | 3 | 7 | |

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces; volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each person per minute

| Average number of cubic feet provided for the feet for the feet for the feet for the feet feet feet feet feet feet feet | 24444444444444 24444444444444444444444 | 493 | 21S 452 | 240 | 366 |
|---|--|------------------------------|---|--|---|
| Number of persons employed inside | 88 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 913 910 | 166 | 20 | 92 |
| Xumber of cubic feet per- find the passing out at out- fet | 6 8 4 8 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8 | 170,000 | 48,000 | 31,000 | 29,500 |
| roq ris to vinasup Isot' Ils ni gaibhearte obunin 1991 oldus ni stilqs 9df ' | 22121212121212121212121212121212121212 | 90,000 | 41,200 | 12, (0) | 20,500 |
| Number of cubic feet of gir per minute entering the mine at inlet | 8 4 8 4 7 4 8 4 7 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 | 100, 000 55, 000 | 57,000 | 30,000 | 21,500 |
| -mo air to stilds to tenniz strat | \7\u02\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | | 401 | 1 21 |
| . Ро <i>т</i> ег <i>18</i> 64 | Steam. | Steam, | Steam, | Steam, | Steam, |
| nst to sms. | | ::: :::: | | :: | |
| | | Guibal, Guibal, | Guibal. | Chilled. | Guibal, |
| ni-baqələyəb əsung rətsVI səfəni | H03H03H1H1H03HH03HH | cı H | 1.4 | 0101 | 5.10 |
| Zumber of revolutions per atuning | 우리 문 한독 한 한 한 한 의 문 문 문 문 문 문 문 문 문 문 문 문 문 문 문 | 9.2 | 118 | 09 | E |
| Depth of blades in feet | မှာတွင်တို့ မွာတွင်းကို တွင်တို့ များမှာ တွင်း များရှိတို့ ကို ကို တွင်တို့ များမှာ | 4.6 | 44 | Ø. t→ | 9. |
| Tool ni sebuld to dibiVI | က်လုပ် (၁၈ ရက်) (၁၈ ရက်) လုလုပ် (၁၈ ရက်) | 4 + | 4.00 | rc 4 | 4.6 |
| teel in fight to retempted | 2325574455555 | 136 | 16 | 18 | 16 |
| nethalitava je bodbak | Pan Pan Pan Pan Pan Pan Pan Pan Pan Pan | Fan | Fan | Fan, | Fan |
| sneeses-nou to sneese() | Carre 10 N. Carre | Gas wus, Gassaus, | Gascous. Gascus. | Gassous. Gassous, | Gaseous. |
| Kind of opening | | : : | :: 1 1 1 1 1 1 1 1 1 1 | <u>2</u> <u>2</u> <u>2</u> | .: |
| Names of Operators and Mines | Philadel his and Reading Coal Knickette ker, Ellen wan, Ellen wan, Marie Hill Marie Hill Suffelk, Suff | Lentz and Co. Park Place. | Lebigh Valley Coal Co. | Silver Brook Coal Co. Silver Brook. | Crystal Run Coal Co. Broad Mountain. |

TABLE 1.-Operators, location of collieries, railroads, etc.

| Railroad to Mine | P. and R. | Lehigh Valley | Lehigh Valley | Lehigh Valley | P. and R. |
|--|--|---------------------------|---------------------------------------|--|---|
| Post Office | Pottsville, | Park Place, | Hazleton, | Silver Brook, | W. W. Paterson, Philadelphia, Wm. E. Jones, Frackville, |
| Name of Superin- | Reese Tasker, Pottsville, | James Reese, | Wilkes-Barre, Thomas Thomas Hazleton, | William Wragg, | Wm. E. Jones, |
| Post Office | Pottsville, | Mahanoy City, | Wilkes-Barre, | 1100 Girard Trust Building, Phila. | Philadelphia, |
| Name of General Superintendent | William J. Rich- ards | Schuylkill, Edward Reese, | Schuylkill, S. D. Warriner, | Schuylkill John L. Wentz, 1100 Girard Trust Building, Phila. | W. W. Paterson, |
| County | Schuylkill | Schuylkill, | Schuylkill, | | Schuylkill |
| Names of Operators and Col- lieries | Philadelphia and Reading Coal and Iron Co. Kniekerboeker, Chingwown, Marjiole, Surfole, St. Nieholis, Baston Run, Tunnel Ridge, Mahamoy City, North Aloftmoy, Indiana Ridge, | Lentz and Co. | Lehigh Valley Coal Co. Primrose, | Silver Brook Coal Co. | Crystal Run Coal Co. Broad Mountain, |

number of persons employed, number killed and injured, quandynamite used, etc. worked, and days of powder number of -Number of tons of coal mined, 67 TABLE

999 999 997 74 74 74 Number of horses and mules \$23 003 005 005 006 006 006 007 008 008 150 500 Number of pounds of dynamite 2,501 21,241 9,191 9,191 6,755 6,755 6,509 4,942 323 660.1 Number of kegs of powder used 96, -1001001001001-101 28 Number of non-fatal accidents 41 Number of fatal accidents 469 1,278 1,578 863 863 1,578 8.963 Number of employes washeries) 260 178 pou averages, Buipnjout Number of days worked (Totals 726 145 0 8 0 8 645 645 679 679 677 673 466 56.4 Total production of coal in tons 385 25 Number of tons sold to local trade and used by employes 542 34,412 133 000 Number of tons used at collieries for steam and heat 32, 440, 23, 23, 22, 25. 610 004 539 to market tons of coal shipped 139, 330, 370, 345, 143, 235, 206, ci 3,645, Schuylkill, Schuylkill, Schuylkill. huylkill, Schuvlkill County Iron Collieries Reading Coal and of Operators and Brook Coal Lentz and Lehieh Valley Run and Silver Broad Mountain. Philadelphia Names Mahan, y city, North Mahanoy Indian Rivige, Knickerbacker, Ellangowan, Maple Hill, Suffolk, St. Nicholas, Boston Rom, Tunnel Ridge, Grand Primrose Silver

TABLE 2.—Recapitulation

| Number of horses and mules | 722 103 44 22 132 | 919 |
|--|--|-----------|
| Number of pounds of dynamite besu | 425, 865 39, 750 19, 367 6, 510 2, 500 | 493, 682 |
| Number of kegs of powder used | 79, 106 10, 323 5, 675 1, 039 | 96, 27.3 |
| Number of non-fatal accidents | 41 4 | ٧ ١.: |
| Number of fatal accidents | 4441 | 000 |
| sevolqme to redmuN | 8,963 893 519 312 | 10,791 |
| Number of days worked (Totals are averages, not including washeries) | 248 260 192 171 21 | 178 |
| snot ni isoo to noitonbord isloT | 3, 470, 915 405, 339 236, 653 80, 595 8, 564 | 4,182,466 |
| Number of tons sold to local trade and used by employes | 49, 732 1, 716 2, 378 1, 385 | 55, 236 |
| Number of tons used at collieries for steam and heat | 387,179 20,542 34,412 25,000 6,009 | 482,133 |
| Number of tons of coal shipped | 3,014,004 374,081 199,863 54,610 2,539 | 3,645,097 |
| County | Schuylkill, | |
| Names of Operators | Philadelphia and Reading Coal and Iron Co | Totals, |

TABLE 2.—PART 2.

| Names of Operators | County | | Number of | Jo J | Boilers | bower. | 1,0001 | Locomotives | ing to senigne maets | DOZ.6L | gnirevileb edmpq estatu | gallons per minute | entivered to surface | electric dynamos | air compressors |
|--------------------|-------------|-------------|------------|------------------------|--------------------------------|--------------------------------|--------|-----------------|----------------------|------------------------------|----------------------------|-----------------------|--------------------------|------------------|-----------------|
| | | (Ylindrical | Horse Dowe | TaluduT | Horse power | Total horse | Steam | Air Bleetric | Number of seasof | Total horse | Number of | Capacity in | duantity d etunim 199 | Number of | Number of |
| and Iron | | 12 | 300 | 160 | 20,800 | 21,100 | = | 15 | 171 | 29,163 | 31 | 47,246 | 24,550 | | = |
| | Schuylkill, | | | 113 120 120 S | 3,250 1,500 1,800 920 | 3,250 1,500 1,806 920 | 01 | 60 | :: 3: ::: 3: | 1,910 1,500 600 760 | es = 4 €1 | 1,440 3,250 780 | 1,440 2,000 400 | - | [C] |
| | | 123 | 300 | 2(.3 | 28,270 | 28, 570 | 16 | 15 | 3 247 | 34,033 | 41 | 57,516 | 28,390 | - | 13 |

TABLE 3.-Number of each class of employes inside and outside of mines

| | ebistuo bun ebisni latot bund) | # 21 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 8,963 | S93 | ===== | 312 | 104 | 10,791 |
|---------|---------------------------------|--|---------|------------------------------|------------------------|---|--------------------------------------|---------------|
| | obismo in T | 55555555 55555555 | 3,165 | 01 | 149 | 149 | \$ | 3,643 |
| | All other employees | 18674555549 | 1.440 | 633 | 1 | 1 % | 30 | 1,668 |
| | Ноовкорот запа светкя | 00 m M 00 m 00 00 m 44 m | 8 | 10 | 01 | 61 | 1 | 1 84 |
| Outside | Slatepiekers (mem) | 277749755 277749755 | 191 | 192 | t- | 1 2 | 9 | 1- |
| Out | Slatepickers (boys) | 일품임무료하 상 통을 | 1,058 | 1 2 | 97 | 40 | 00 | .145 |
| | Gneineers and fremen | 29984486922 | 52.2 | 100 | 16 | 11 81 | 9 | 5. |
| | Blacksmiths and carpenters | <u>ლოუφ√ι: ×1-√12</u> | 73 | , X | = | 9 | ll re | 151 |
| | Богетеп | 010101H H01:100H | 9 | 1 | - | c1 | | 1 51 |
| | Superintendents | | | ា | ii : | | į. | - |
| | | 1.06.5 1. | 5,898 | 199 | 370 | 163 | 92 | 7,148 |
| | seyolqına tento IIA | \$2555255555555555555555555555555555555 | 1,081 | ទ | 106 | | | .216 |
| | Сошрану теп | 848888848 | 101 | 69 | | % 1 | 10 | 632 1 |
| | Ъппуртеп | 61 H H 4 61 61 4 LD | 71 | П | - | 12 | 10 | 26 |
| Inside | Door boys and helpers | 244 - 3 2 1 2 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 | 98 | 9 | 63 | 00 | | 169 |
| Ins | Privers and runners | #2855574948 | 112 | = | 81 | ~ | = | 513 |
| | Miners' laborers | 8288228E28 | 1,762 | i | 9 | g. | 10 | 1.6 |
| | srəniM | 584625699V | i. 117 | 1 8 | 1991 | ======================================= | 18 | 2,625 |
| | Fire hasses and aristants | @ @ M & & & & & & & & & & & & & & & & & | 4 | ·/. | en l | 1 : | - | 3 |
| | Assistant mine foremen | ======================================= | 1. | P 21 | 1 | - | · - | == |
| | Mine forenta | | = | ्रा | - | - | | 12 |
| | County | Schuylkill, | | Schuylkill, | Sehuylkill, | Schuylkill | Schuylkill, | |
| | Names of Operators and Collines | Philadelphin and Reading Coal and Iron Co. Kniekarbucker, Fillangewan, Fillangewan, Salphin, Suffolk, Suffolk, Suffolk, Suffolk, Fillangewan, Fillangewan, Fillangewan, Suffolk, Suffol | Totals, | Lentz and Co. Park Place, | Lehigh Valley Coal Co. | Silver Brook Conl Co. Silver Brook. | Crysfal Run Coal Co. Broad Mountain, | Grand totals, |

TABLE 3.—Recapitulation

| | REPORT OF THE DI | SFA. | L I WEI | 4 T (|
|---------|--------------------------------|--------------------------|---|------------|
| | Grand tetal inside and outside | 8,963 | 893 512 104 | 10,791 |
| | spistno IstoT | 3,065 | 232 149 149 48 | 3, 643 |
| | All other employes | 1,440 | 2582 | 1,668 |
| | Buokkeepers and clerks | % | 10 01 63 H | 48 |
| lde | Slate pickers (men) | 161 | 136-80 | 277 |
| Outside | Slate pickers (boys) | 1,658 | ± 2 0 ∞ | 1,145 |
| | Fingineers and firemen | () () | 12 m | 822 |
| | Blacksmiths and carpenters | 79 | S. C. de 13 | 158 158 |
| | Foremen | 91 . | | 21 |
| | Superintendents | : | 63 [| 4 |
| | | 5,898 | 661 370 163 56 | 7.148 |
| | All other employes | 1,081 | 10.6 | 1,216 |
| | Company men | 525 | 8 :89 | 632 |
| | Pumpmen | £.2 | 11 451 75 | 26 |
| Inside | Door boys and helpers | 06 | φmm : | 105 |
| In | Drivers and runners | 412 | 448811 | 513 |
| | Aliners' laborers | 1,562 | | 1,897 |
| | Miners | 2,117 | 260 160 70 18 | 2,625 |
| | Fire bosses and assistants | 68 | × 00 00 | 198 |
| | Assistant mine foremen | ce | 23 : 17 - | 21 |
| | Mine foremen | = | 27F | 152 |
| | County | | Schuylkill, | |
| | Names of Operators | Philadelphia and Reading | Coal and Iron Co. Lentz and Co. Lehish Valley Coal Co. Silver Brook Coal Co. Crystal Run Coal Co. | Totals, |

TABLE 3.—PART 2.

| | - | | | | Numb | Number of Days Worked in Breaker | tys Wol | ked in | Break | ı.e | | | | |
|--|-------------|----------------------|--|-----------|------------|----------------------------------|-------------------|-------------------|---------------------------------|--|----------|----------|---|--|
| Names of Operators and Collierles | County | lanuary | February | March | lindA | May | June | luly | tsuguA | September | October | November | December | IstoT |
| Philade-lpha and Reading Coal and Iron Co. Knicker-inciden. Ellmanwan, Mande Hill, Suffolk, Suffolk, Boston Jun, Humer Ridge, Malhamoy Citik | Sebuylkill, | 20 3388888888 | ###################################### | 888888888 | 1182222222 | 22882288888 | 42484884461 19 | .: I 888888888888 | 2228888828 2228888828 111 | 2248844584 : : : : : : : : | 22222222 | 22222222 | . 2288888888888888888888888888888888888 | 2443 2748 2748 2748 274 274 1135 |
| Lentz and Co. | Schuylkill, | 63 | 14 | 25 | 21 | 252 | 42 | 19 | 19 | 25 | 24 | 523 | 22 | 260 |
| Lehigh Valley Coal Co. | Schuylkill, | 18 | - | 8 | 17 | 20 | 20 | 17 | 18 | 17 | 21 | 50 | 20 | 192 |
| Silver Brook, | Sehuylkill, | 6 | 13 | 9 | | | 24 | 21 | 6. | 21 | 22 | 19 | 16 | E |
| Crystal Run Coal Co. Broad Mountain, | Schuylkill, | 14 | | | | | | _ | | | | | 1- | 21 |
| | | | | | | | | | | | | | | |

TABLE 4.—Fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Instantly killed by a fall of slate. Instantly killed by trip of mine cars, instantly killed by a fall of coal. Injuned by premature blast. Died the | Instantly killed by fall of slate. Injured by premature blast. Died the same day. | Instantly killed by a P. and R. Railway car. Outside. | Injured by being eaught in rope wheel, Died the same day, Outside, | Instantly killed by being caught between nume cars. | Injured by fall of coal March 8. His hipries were considered trifling and the accident was not reported to the Mine Inspector until the man died at the | State Hospital, April 27. Destantly killed by being caught between | Burner cars. Burner by gas. Died at State Hospital | Injury of Justified some day. Died at | Injury of the state of the stat | Instantly killed by falling under a trip | Instantly killed by falling under a trip | During by gas, Died at State Hospital | Burned by gas. Died at State Hospital April 29. |
|--|--|---|---|---|---|---|--|---|---------------------------------------|--|--|--|---------------------------------------|---|
| County | | | | | | Schuylkill, . | | | | | | | | |
| Name of Mine | Suffolk, Mayle Hill, Indian Ridge, North Mahaney, | Mahanoy City,' Maple Hill, | st. Nicholas, | Mahanoy City, | Ellangowan, | Mahanoy City, | North Mahanoy | Park Place | Ellangowan, | St. Nicholas, | Maple Hill, | Indian Ridge, | Maple Hill, | Maple Hill, |
| sminist of adminy summittee of a sum | | 1 5 | : | : | : | | : | : | : | : | : | 1 | 1 3 | : |
| signis no beitania | iii Krini | %.₩ :: | | | : or. | : | : : | 33 | : vì | : U_ | .: .: | M. | M. | i: vi |
| Vge | #1832 #1833 | 86 | | | 00 | L- 01 | ŝ | 9 | 13 | 66. | 83 | 65 | 65 | 30 |
| noitsquo-O | Laborer, Miner, Laborer, Miner, | Laborer, | Laborer, | Laborer, | Driver, | Miner, | Bottom man, | Miner, | Miner, | Miner, | Driver, | Driver, | Miner, | Miner, |
| Valianality | Polish, Polish, Lithuanian, Polish, | Hungarian, Lithuanian, | Polish, | | Polish, | Polish, | American, | Polish, | Hungarian, | Lithuanian,. | Irish, | Irish, | Lithuanian,. | Lithuanian,. |
| Name of Person | Andrew Creabook, Matthew Walchock, Jos Swityraw, Charles Musinskey, | Martha Patrisky, Matthew Delmskey, | George Wilkes, | Matthew Cooper, | Mexander Mayufskie, | Steve Talle, | Frad Becker, | Joseph Pawskis, | George Shilwskie, | George Krisnismy, | William Shaughnessy, | Frank Met'armick, | Andrew Gerreras | Andrew Marcavage, |
| Pate of accident: | ==42= | ÷ 1 = | 1. | 1. | \$5 - | 7 #5 | Ç. | gave gave | 31 | 11 11 | 50 | ç1 | E | 6.3 |
| | Jan. | Feb. | | | | March | | | | Aprill | | | | |

| Instantly killed by a fall of top slate. Injured by premature blast. Died the same day. Instantly killed by fall of coal. Instantly killed by falling down manway. Instantly killed by a fall of coal. Instantly killed by a fall of coal. Instantly killed by being caught in machinery. Outside, being run over by a trip of cars. Instantly killed by being run over by a trip of cars. Instantly killed by fall of coal. Instantly killed by fall of coal. | July 30, Instantly killed by being run over by a trip of cars. Instantly killed by falling under a trip of cars. Instantly killed by premature blast. Burned by gas. Died at Sute Hospital September 18. Burned by powder, Died at State Hospital by powder. Died at State Hospital by powder. In all September 19. | | Instantly killed by a rush of coal. Instantly killed by a rush of coal. Injured by heing caught between a trip of loaded cars. Died the same day. Instantly killed by a premature blast. Injured by a premature blast. Cember 29 in State Hospital. |
|--|---|---|---|
| | in o | in a said | |
| North Mahanoy Maple Hill, St. Nicholas, Raple Hill, Ellangowan, Maple Hill, Indian Ridge, Mahanoy City, | Ellangowan, Indian Ridge, Maple Hill, Park Place, Baston Run, Primrose, | St. Nicholas, Tunnel Ridge, Tunnel Ridge, Suffolk, Blangawan, St. Nicholas, Suffolk, Blangawan, St. Nicholas, | Frinnose. Park Place. Silver Brook. North Mahanoy. |
| | 6 8 6 | φ :a -a | · 60 |
| | | | н : н : |
| www.weinie | | | wik wiki |
| 88 28882 8 88 | 4 8 8 888 8 4 | | 352 78 |
| Laborer, Laborer, Miner, Miner, Miner, Jig man, Laborer, Laborer, Miner, | | | Miner, Miner, Miner, |
| Polish, Polish, Polish, Polish, Lithuanian, Polish, Polish, Polish, Polish, Italian, American, | Polish, American, English, Lithuanian, Lithuanian, Polish, Polish, | | Lithuanian. Lithuanian. Lithuanian, Italian |
| Charles Rice, John Solowak, Michael Rudkofski, Shame Staunkunus, Shame Staunkunus, John Dougert, John Dougert, Jacob Boots, Tartar Romondo, Paniel Scick, | Simon Novitskie, Anthony Posko, James Lockley, John Adams, John Golinski, Mike Blescus, Salius Reeder, James Smith | Shedlofski, hopfert, Slavinsky, evelolis, evelolis, Galdelisey, Galdelisey, Galdelisey, Galdelisey, Raarveek, | |
| 21 2222 H H | 5 5 8 11 1 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 | 8 1 8 2 5 5 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 25 82 |
| May June July | Aug. | Oct. Dec. c. | |

TABLE 5.-Non-fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Leg injured by trip of mine cars. Head and body injured by mine cars. Arm broken. (2mght between pullas, and | rope. Outside. Leg broken by premature blast. Injured on head and chest by ploce of | coal. Burned by gas, Foot crushed by machinery. Outside. Neck and head injured by falling down | chute. Injured by explosion of dynamite. Face injured by explosion of dynamite. Injured by compressed air pipe bursting. Leg mjured by fail of coal. | Leg injured by fall of coal. Foot injured by mine car. Back injured by fall of coal. Leg and arm injured by fall of coal. His squeezed by mine extrand door fame. His squeezed by mine arms injured by proma- | ture blast. Leg broken by fall of slaves. Hip dislocated. Squeezed between two | | |
|---------------------------------------|--|---|--|---|---|--|--------------------|---|
| County | | | | | Schuylkill, | | | |
| Name of Mine | Maple Hill, Maple Hill, Suffolk, | Maple Hill, Park Place, | Park Place, Mahanoy City, Kniekerbocker, | Maple Hill, Ellangowan, Maple Hill, | Maple Hill, Knickerbucker, Fallangowan, Park Place, Knickerbocker, Maple Hill, | Ellangowan, | North Mahanoy, | Maple Hill, Maple Hill, Maple Hill, Silver Brook, Tunnel Ridge, Mahanoy City, |
| Married or single | 00 00 00 | ZZ. | Kww | ZZZZ | នីស់ស់ស់ស់ស់ | vi vi | ນ. ທ່ | w Zwww Zw |
| 92A | 223.6 | 38 | 37 | | ###################################### | 35 | 36 | ម្ភមន្តដូច្នងន |
| noitaquooO | Laborer, Laborer, Laborer, | Miner, | Miner, Slate picker, | Miner, Miner, Fire boss, Miner, | Bottom man, Miner Laborer, Timbe rman, | Miner. Fan boy, | Miner, Laborer, | Timberman, Miner Laborer, Patcher, Miner, Miner |
| Vationality | Polish, Polish, Polish, | Lithuanian, | Polish, American, Polish, | Polish, Polish, Welsh, Lithuanian, | | Polish, | Polish, | Hungarian, L. thuanian, Lithuanian, Hungarian, Polish, Polish, |
| Name of Person | George Reddy, Stiney Analayage, Cassmore Budash, | Simon Askitus, Peter Zebolish, | George Koberlitus, William Altof, John Levenavage, | John Vinseo, Frank Washlefski, Thomas Powell, John Tennala, Peter Golos | Michael Stravinskey, George Kulmiskie, George Brodrick, Frank Anaskavich, Matt. Gearey, | Charles Danavoge, | John Ostronskey, | Joo Gratt, Anthew Pottuskie, Joe Alludas, Jown Temas, William Purke, Stanley Matulis, John Brush, |
| late of accident | 2217 | 212-1 | h 11 | | 28-21 | 11 | 1-00 | FERREIS |
| inste of accident | Jan. | Feb. | March | April | May | | June | July |

| Head injured by fall of coal, knocking him down the manway. Burned by gas. Burned hy an explosion of powder. Foot injured by mine car. Face and hands burned by gas. Fare and hands burned by gas. | . Burned by explosion of powder. | Leg fractured by machinery. Head and side injured by premature blast, llead and body injured by falling down | Emanyay, mammay and prock. Lest injured by fall of coal. Lest broken by mine car. Foot broken by fall of coal. Lest broken by fall of coal. | Fullful by damping down ashes under boiler. Outside. Injured by a rush of loose coal. | Injured by Brims valuezed between mine cars and platform. Leg hroken by fall of coal. Leg injured by mine car. Injured by a premature blast, |
|--|--|--|---|---|---|
| Schuylkill, | Schuylkill, | | Schuylkill, | | |
| S. Park Place. M. Mahanoy City. S. Indian Ridge. M. Mahanoy City. M. Mahanoy City. S. Boston Run, | Primrose, | Silver Brook, Ellangowan, Knickerbocker, | Ellangowan, Park Place, Maple Hill, St. Nicholas, North Mahanoy, | Silver Brook, Boston Run, Mahanov City | Park Place, Ellangowan, Silver Brook, |
| | izikizizizi | ZZZ | wiwiziwizi | က် က် က် | NÄN |
| | | 23.32 | 36 23 23 24 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25 | | |
| Miner, Miner, Driver, Laborer, Miner, | Miner, Miner, Miner, Miner, | Machinist, Miner, Fire boss, | Miner, Laburer, Miner, Miner, Miner, | Ashman, Laborer, Driver, | Miner, |
| Polish, American, Polish, Polish, Polish, Polish, Polish, Polish, Polish, Polish, Ithhuanian | Lithuanian, Italian, American, Vmerican, Scotch, | | Polish, Polish, Lithuanian, Polish Lithuanian, Lithuanian, | Italian, Lithuanian, | Lithuanian, Welsh, Italian, |
| Matt. Cusie, Joe Seick, John Kotkosky, Exariah Hukhes, Untries Reich, John Book, Martin Reeder, Martin Reeder, Paul Powsa. | Joseph Stoshit Thomas Seria: William Simm Charles Kates John Lowe. | | Mcnolskie, Minuts, Harpnell, rles (zyaglis, Zurinski, Pleakenis, | | John Delinski, William Griffiths, Joseph Phillips, |
| 8 2220ccc55 | 16 16 16 16 2 | 10 10 | 12 13 15 17 17 17 17 17 17 17 17 17 17 17 17 17 | 11 | 19 21 28 |
| July Aug. Sept. | Oet. | | Nov. Dec. | | |

FATAL ACCIDENTS

Falls of Coal, Slate and Roof

Indian Ridge, January 18, Joe Swityraw, laborer, was killed instantly while shoveling coal into sheet iron chute. A piece of coal fell on him.

Saint Nicholas, April 11, George Krisnisky, miner, was fatally injured. He was dressing down some loose coal in the gangway when

a piece fell. He died April 14 at the State Hospital.

Mahanoy City, March 8th, Steve Tallow, miner, was fatally injured. He was dressing down some loose coal when a piece rolled on him, and he died at the State Hospital April 27.

Maple Hill, May 20, Michael Rudkofski, miner, was killed instantly. While dressing down some loose coal a piece fell on him.

Maple Hill, May 26, Stiney Bugdanvich, miner, was in the act of dressing down some loose coal when a piece fell, instantly killing him.

Ellangowan, May 31, Joe Dougert, was fatally injured. While in the act of dressing down some loose coal a piece fell on him. He

died at the State Hospital June 1.

Mahanoy City, June 15, Tarter Romondo, laborer, was instantly killed. He was told to load a car with coal off the platform. He disobeyed orders and picked coal from the side when a piece fell on him.

Tunnel Ridge, October 6, Joe Shevuolis, miner, was killed instantly. While crossing the breast to see if his manway was open a fall of coal caught him.

Suffolk, October 11, Matthew Yokitis, miner, was in the act of dressing some loose coal when a piece fell, killing him instantly.

St. Nicholas, November 25, Stiney Sheva, miner, was caught by a

fall of coal while timbering a heading and instantly killed.

Mahanov City, December 4, Mike Sasarock, miner, was killed instantly. He had fired a blast the night before and was warned by his butty not to go under until he had dressed down the loose material, but he did not heed the warning and began mining under this loose coal and bone which fell on him.

Suffolk, January 11, Andrew Creahock, laborer, while in the act of firing a blast was caught by a fall of slate and instantly killed.

Mahanoy City, January 20, Martin Patrisky, laborer, was instantly killed. He and his miner were working in a breast when a fall of top slate caught him.

Ellangowan, March 22, George Shilwskie, miner, while working in a breast was caught by a fall of slate and died at State Hospital the

same day.

North Mahanoy, May 5, Charles Rice, laborer, while loading a

buggy of coal was caught by a fall of slate and instantly killed.

Ellangowan, October 12, Charles Gubliskey, miner, had fired a blast which discharged some props from supporting the roof and while making an examination it fell, killing him instantly.

Cars

Maple Hill, January 12, Matt. Walchock, miner, was killed instant ly. In going to work on the night shift with his two laborers was run over by a trip of mine cars. The locomotive making a flying shift at the time.

Ellangowan, February 25, Alexander Mayufskie, driver, was instantly killed. While cleaning the rail in front of car wheel the mule started and he was caught between the car and high side of gangway.

North Mahanoy, March 10, Fred Becker, bottom man, was killed instantly. He was in the act of uncoupling two mine cars while in

motion and his head was caught.

Maple Hill, April 20, William Shaughnessy, driver, fell under a trip of cars that was being pulled to the turn-out and was instantly killed.

Indian Ridge, April 21, Frank McCormick, driver, was caught be-

tween car and low side of gangway. He died the same day.

Indian Ridge, June 14, Jacob Boots, laborer, was instantly killed, while walking along the rope haulage road by being run over with a trip of cars.

Ellangowan, August 12, Simon Novitskie, miner, was instantly killed. He was walking down the slant having been told not to,

when a trip of cars got off the track.

Indian Ridge, September 7, Anthony Posko, driver, was instantly killed by falling under car when in the act of jumping on the bumper.

Maple Hill, September 8, James Lockley, switchman, was fatally injured. The boy had forgotten to turn the switch, and he was caught between two trips on same track. He died the same day.

Park Place, December 16, John Shetoskie, laborer, was fatally injured. He was about to go home, having forgotten his oil can, when he jumped across between the moving cars and was caught between the car and platform. He died the same day.

St. Nicholas, February 8, George Wilkes, laborer, was instantly killed. He with others was pushing a P. & R. railroad car when

he fell under.

Explosions of Gas, Powder and Dynamite

Park Place, March 11, Joseph Pawskis, miner, was fatally injured. He was working with locked safety lamp, and picked the lock open, firing the gas. He died at the State Hospital, March 23.

Maple Hill, April 27, Andrew Gorronas and Andrew Marcavage, miners, were fatally injured. They went into an abandoned portion of the mine and fired the gas. They died at the State Hospital

April 29.

Mahanoy City, July 24, Daniel Seick, miner, was fatally injured, He went up the breast with a naked lamp. His father at the same time was removing a small quantity of gas by fixing up canvas near the heading, and this gas the boy lit in the return airway. He died at the State Hospital July 30.

Boston Run, September 12, Mike Blescus, laborer, was fatally injured. He was told by the miner to load a car of coal at the chute. The miner had sent the fan boy home, stating that he would not need him that night and would not work in the chute, but he sent the

two laborers back to the chute to load and they fired the gas. Blescus died at the State Hospital September 18.

Primrose colliery, September 16, Salius Reeder, laborer, James Smith, miner, and Joseph Shedlofski, laborer, were fatally injured. They with others were taking their powder through the tunnel and one of the kegs came in contact with an electric wire, giving the man that had the keg a shock. He dropped the keg on the floor and it burst, and the powder was ignited by the lamp of one of the victims. Reeder died at State Hospital September 19, Smith died at home September 24, Shedlofskie died at the State Hospital September 26.

Premature Blasts

North Mahanoy, January 19, Charles Musinskey, miner, was in the act of firing a blast and went back thinking the squib had missed. It went off, instantly killing him.

Maple Hill, February 7, Matt. Dolinskey, miner, was fatally injured. He was in a heading when the man in the next breast fired a blast, blowing through into the heading which they were in. He died the same day.

Maple Hill, May 11, John Solowak, laborer, was fatally injured. He and the miner were charging a hole with dynamite, using an iron drill for a tamping bar. He died the same day at State Hospital.

Park Place, September 11, John Adams, miner, was instantly killed while in the act of firing a blast he cut the match on the squib so short that there was no time to get away from the place.

Park Place, September 11, John Golinski, laborer, was instantly killed. He and the miner were in the act of firing a blast and shortened the match on the squib. The blast went, off killing him.

Tunnel Ridge, September 19, Frank Slavinsky, was instantly killed. He was in the act of firing a blast and shortened the match. It went off before he could get away.

North Mahanoy, December 28, Anthony Geoskie, miner, was fatally injured. He had lighted a blast and gone to a place of safety, remaining there for a time. Thinking the shot had missed, he returned and it went off, injuring him. He died at the State Hospital December 29.

Silver Brook, December 28, John Phillips, miner, and his son were in the act of tamping a hole when the charge went off, killing the father instantly.

Falling Down Shafts, Slopes and Manways

St. Nicholas, May 20, Simon Staunkunus, was killed instantly. The miners in the next breast had just fired a blast while he was in the heading very close to the face, the smoke from the blast coming through the heading where he was. It is supposed that he was overcome by the fumes from the shot and fell down the manway breaking his neck.

St. Nicholas, September 18, John Goepfert, laborer, fell and was instantly killed while he and others were repairing the main slope at night.

Primrose, December 5, Benjamin Yourish, headman, was drowned.

He and three others were hoisting water. Yourish got over the fence, disobeyed orders, and fell down the shaft.

Miscellaneous

Tunnel Ridge, September 19, John Macknavige, starter, was in the act of starting a battery when one of the foot props gave out, causing the coal to rush, instantly killing him.

Boston Run, December 7, Mike Matulis, miner, was standing on the gangway when an explosion occurred in one of the breasts, blowing out a temporary battery, which caused the coal to rush, killing him instantly.

Caught by Machinery, Outside

Mahanoy City, February 17, Mathew Cooper, laborer, was fatally injured. He and others were working over-time fixing the scraper line and other parts of the machinery and in some unknown manner he got caught in a rope wheel. He died the same day.

Maple Hill, June 10, James Collins, jigman, was instantly killed by getting into the jig to do some repairs without first stopping the

machinery.

CONDITION OF COLLIERIES

PHILADELPHIA AND READING COAL AND IRON COMPANY

Knickerbocker Colliery.—Ventilation and road beds in good condition.

Ellangowan Colliery.—Ventilation and roads beds in good condition.

Maple Hill Colliery.—Ventilation and road beds in good condition.

Suffolk Colliery.—Ventilation and road beds in good condition.

St. Nicholas Colliery.—Ventilation and road beds in good condition.

Boston Run Colliery.—Ventilation and road beds in good condition.

Tunnel Ridge Colliery.—Ventilation and road beds in good condition.

Mahanoy City Colliery.—Ventilation and road beds in good condition.

North Mahanoy Colliery.—Ventilation and road beds in good condition

Indian Ridge Colliery.—Ventilation fair, road beds in good condition.

LENTZ AND COMPANY

Park Place Colliery.—Ventilation and road beds in fair condition.

LEHIGH VALLEY COAL COMPANY

Primrose Colliery.—Ventilation and road beds in fair condition.

SILVER BROOK COAL COMPANY

Silver Brook Colliery.—Ventilation and road beds in poor condition.

25-22-1905

CRYSTAL RUN COAL COMPANY

Broad Mountain Colliery.—Ventilation and road beds in fair condition.

Mine Foremen's Examinations

The following is a list of those who were successful in the examination for mine foremen and assistant mine foremen, held at Pottsville in April.

Mine Foremen

William McLaren, St. Nicholas; John Perry, Mahanoy City; George Carmitchel, Park Place; Daniel Phillips, Mahanoy City; John Lannon, Yatesville; Henry Fry, Yatesville; Thomas Frost, Mahanoy City; Charles McKern, Maple Hill; John Gustitus, Maple Hill; Charles Klingerman, Mahanoy City; Arthur Dixon, Shenandoah; John H. Roberts, Shenandoah; Henry Petritsch, Boston Run; William Mauger, Mahanoy City.

Assistant Mine Foremen

William Raudenbush, Maple Hill; Thomas Quinney, Mahanoy City; James J. Glennon, Park Place.

Twelfth District

SCHUYLKILL COUNTY

Pottsville, Pa., March 2, 1906.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my annual report as Inspector of Mines of the Twelfth Anthracite District, for the year ending December 31, 1905.

Respectfully submitted,
MICHAEL J. BRENNAN,
Inspector.

SUMMARY OF STATISTICS

| Number of collieries, | 22 |
|--|-----------|
| Number of mines, | 50 |
| Number of mines in operation, | 50 |
| Number of tons of coal shipped to market, | 3,722,322 |
| Number of tons used at mines for steam and heat, | 525,110 |
| Number of tons sold to local trade and used by employes,. | 41,856 |
| Number of tons produced, | 4,289,288 |
| Number of persons employed inside of mines, | 6,602 |
| Number of persons employed outside, | 3,786 |
| Number of fatal accidents inside of mines, | 38 |
| Number of fatal accidents outside, | 6 |
| Number of non-fatal accidents inside of mines, | 63 |
| Number of non-fatal accidents outside, | 13 |
| Number of tons of coal produced per fatal accident inside, | 112,876 |
| Number of persons employed per fatal accident inside,. | 174 |
| Number of persons employed per fatal accident outside, | 631 |
| Number of persons employed per non-fatal accident in- | |
| side, | 105 |
| Number of persons employed per non-fatal accident out- | |
| side, | 291 |
| Number of wives made widows, | 28 |
| Number of children orphaned, | 60 |
| Number of steam locomotives used inside of mines, | 1 |
| Number of steam locomotives used outside, | 28 |
| Number of electric motors used inside, | 9 |
| Number of fans in use, | 37 |
| Number of gaseous mines in operation, | 37 |
| Number of non-gaseous mines in operation, | 13 |
| Number of old mines abandoned, | 2 |

TABLE A

PRODUCTION OF COAL

| Names of Operators | Tons |
|---|-------------|
| Philadelphia and Reading Coal and Iron Company, | 2,349,576 |
| St. Clair Coal Company, | 504,400 |
| Lytle Coal Company, | 385,320 |
| Buck Run Coal Company, | $266,\!593$ |
| Oak Hill Coal Company, | 174,601 |
| Pine Hill Coal Company, | 145,048 |
| Snyder and Company, | $93,\!241$ |
| Stoddart Coal Company, | $78,\!456$ |
| Mt. Hope Coal Company, | 75,911 |
| Darkwater Coal Company, | 44,833 |
| Silverton Coal Company, | 41,963 |
| John H. Davis Company, | 37,954 |
| E. White and Company, | $35,\!295$ |
| East Ridge Coal Company, | 25,118 |
| Black Diamond Anthracite Company, | 11,542 |
| Pottsville Coal Company, | 9,722 |
| Lehigh Valley Coal Company, | 9,715 |
| Total, | 4,289,288 |
| Production by Counties Schuylkill, | 4 289 288 |
| = ==================================== | 4,200,200 |

TABLE B.-Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

| 11 | | |
|---------------------|---|--|
| əpis | Number of employes out | 33 102 102 134 134 135 102 102 102 102 102 102 102 102 102 102 |
| 9biz | Number of employes in per non-fatal accident, | 139 162 162 163 163 163 164 163 163 171 171 171 |
| əpta | Number of employes out | 63 134 134 72 72 72 72 |
| 9pis | Number of employes in per fatal accident | 325 122 179 179 327 337 366 56 85 51 |
| s | Total number of employe | 5,938 805 805 805 805 465 465 179 835 143 173 822 183 83 84 10,388 |
| əbi | Number of employes outs | 2,055 315 315 24 1134 1134 1130 130 130 130 130 130 130 130 130 13 |
| ә | Number of employes insid | 3,898 4990 2577 3177 309 309 1113 113 113 113 152 85 154 65 62 62 62 62 62 62 62 62 62 62 62 62 62 |
| per | Tons of coal produced non-fatal accident insid | 83,913 126,100 29,640 174,601 48,864 174,601 48,349 8,823 8,823 4,857 68,084 |
| Det. | Tons of coal produced | 195, 798 126, 100 55, 045 66, 648 174, 641 175, 048 22, 416 35, 295 35, 295 112, 876 |
| oldents | IstoT | #41000000140014 (1 67 |
| Non-fatal Accidents | Outside | 8 8 1 181 |
| Non-fa | əpizuI | 00 4 H H H H H H H H H H H H H H H H H H |
| ents | IstoT | N464044004 440 4 |
| Fatal Accidents | SpistuO | |
| Fat | •plenI | U 4, 12-4, 13-11 00 00 11 00 00 00 00 00 00 00 00 00 0 |
| | Names of Operators | Philadelphia and Reading Coal and Iron Co. St. Clair Coal Co. Buyte Coal Co. Buck Run Coal Co. Coak Hill Coal Co. Stoddart Coal Co. Stoddart Coal Co. Stoddart Coal Co. Stoddart Coal Co. Darkwater Coal Co. E. White and Company. East Ridge Coal Co. Lehigh Valley Coal Co. Miscellaneous companies. Totals and averages for district, |

TABLE C.-Classification of Fatal Accidents Inside and Outside of Mines

| | | | | | | | === | | _ | | | | | |
|---|---------|----------|-------|-------|-----|---------------|-------|--------|-----------|---------------------|----------|----------|--|--|
| | | | | | | | M | onth | s | | | | | |
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Percentages | Totals |
| Falls of coal, Falls of slate, Falls of roof, Mine cars, Explosions of gas and dust, Suffocation by gas, etc., Explosions of powder and dynamite, Premature blasts, Falling into shafts, Falling into slopes, etc., | 2 | | 2 | 1 | 1 | | 1 1 | | 1 | 1 1 5 | 1 | 1 2 | 4 7 6 6 3 4 1 4 2 1 | 10.53 18.42 15.79 15.79 7.89 10.53 2.63 10.53 5.26 2.63 |
| Causes of Accidents Outside Cars, Machinery, Suffocation in chutes, etc., Boiler explosions, Miscellaneous, | 1 | | | 1 | | 1 | 1 | | | | | 1 | 1 1 1 1 2 | 16.67 16.67 16.67 16.66 33.33 |
| Totals, | | 7 | 6 | 3 | 3 | $\frac{1}{2}$ | 3 | 2 | 2 | 5 | 4 | 1 3 | 6 44 | 100 |

TABLE D.-Classification of Non-fatal Accidents Inside and Outside of Mines

| | Months | | | | | | | | | | | | | |
|--|---------|----------|-------|----------|-------|---------------------------------|------|--------------------------------------|-------------------------------|-----------------------------|----------|-----------|--|--|
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December. | Totals | Percentages |
| Falls of coal., Falls of slate, Falls of roof, Mine cars, Explosions of gas and dust, Premature blasts, Falling into slopes, etc. By mules, Miscellaneous, Totals, | | | | 1 1 2 == | 1 1 1 | 1 1 2 1 6 == | 2 2 | 2 2 2 2 4 1 13 | 1 2 3 1 1 | 1 3 1 5 === | 5 | 1 2 | 9 14 4 12 18 1 1 1 3 63 | 14.28 22.22 6.35 19.05 28.57 1.59 1.59 4.76 |
| Causes of Accidents Outside Cars, Machinery, Boiler explosions, Miscellaneous, | 1 1 | 1 | | 1 | 1 | 1 1 | | 1 | | 1 | | 1 | 5 3 1 4 | 38.46 23.08 7.69 30.77 |
| Totals, | | 1 2 | 4 | 1 3 | 2 6 | 2 8 | | 1 14 | 10 | 1 6 | 7 | 2 | 13 | 100 |
| Grand totals inside and outside, | 10 | 2 | 4 | 3 | Ь | 8 | " | 14 | 10 | | | 3 | 10 | |

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|---|---------|------------|------------------|-------|------------|------|-------|--------|------------|------------|----------|----------|-------------------|
| | January | February | March . | April | May | June | July | August | September | October | November | December | Totals |
| Miners, Inside Miners' laborers, Drivers and runners, Company men, | 3 | 4 1 | 2 1 2 1 | 1 | 1 2 | 1 | 1 | 2 | 1 1 | 3 1 | 1 3 | 2 | 22 8 4 4 |
| Totals, | 3 | 6 | 6 | 2 | 3 | 1 | 2 | 2 | 2 | 5 | 4 | 2 | 38 |
| Outside Engineers and firemen. Slateplokers (boys), All other employes, | 1 | | | 1 | | 1 | i | | | | | | 1 1 4 |
| Totals, | 1 | 1 | | 1 | | 1 | 1 | | | | | 1 | 6 |
| Grand totals inside and outside, | 4 | 7 | 6 | 3 | 3 | 2 | 3 | 2 | 2 | 5 | 4 | 3 | 44 |

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|---|---------|----------|-------|-----------|------------------------------------|--------------------------------------|----------|-----------------------------|-----------|---------|-------------------|--------------------------------|---|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Drivers and runners, Company men, All other employes, Totals, | | 1 1 1 2 | 4 === | 2 | 3 1 4 == 2 | 2 4 6 == 1 1 2 | 6 == | 9 1 1 2 13 = | 10 | 5 | 1 -7 == | 1 1 1 2 == | 37 15 6 1 4 €3 === 1 1 1 1 1 1 76 |

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

| Arennerican, | | Months | | | | | | | | | | | | |
|--------------|---|---------|-------------|------------------|-------|-----------------|------|------|--------|-----------|---------|----------|----------|--------|
| Inglish I | | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| | nglish, Velsh, rish, erman, olish, lungarian, lavonian, ithuanian, ustrian, | 1 2 | 1 2 1 | 1 1 1 1 | 1 | 1 1 1 | | 1 | 1 1 | | | 1 1 | 1 | 1 |

TABLE H .- Nationality of Persons Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|--------------------|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|--------|
| | Jamuary | February | March | April | May | June | July | August | September | October | November | December | Totals |
| merican, | 3 | 1 | 3 | 1 | 3 | 5 | 5 | 4 | 6 | 3 | 2 | 1 | |
| erman, olish | 1 | 1 | | | | | | 2 2 | | 1 | 1 | 2 | |
| ungarian, avonian, | 1 | | 1 | 1 | . 1 | | | 1 2 | 1 | 1 | 1 | 1 | |
| thuanian, | | | | | . 1 | 2 | | 1 | 2 | | 2 | | |
| ustrian,ussian, | 1 | | | 1 | 1 | | 1 | | | | 1 | | |
| | | 2 | | 3 | 6 | 8 | 6 | 14 | 10 | 6 | 7 | 4 | |

BLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each person TABLE I.-Operators and mines, per minute

| Average number of cubic feet per minute provided for each person | 236 3864 315 387 387 411 411 411 239 239 297 221 221 348 519 6119 6115 |
|--|---|
| Number of persons employed inside | 70 310 333 333 241 109 329 329 122 122 66 331 52 52 52 52 52 53 53 53 54 54 54 54 54 54 54 54 54 54 54 54 54 |
| Number of cubic feet per minute passing out at out- let | 17, 420 1135, 525 1135, 525 97, 520 42, 800 192, 250 192, 250 10, 500 10, 500 10, 500 11, 987 12, 187 12, 187 14, 187 15, 187 16, 187 17, 187 18, 187 |
| Total quantity of air per minute circulating in all the splits in cubic feet | 16, 520 48, 685 1113, (90 98, 100 44, 800 184, 200 178, 500 178, 5 |
| Number of cubic feet of air per minute entering the mine at inlet | 16, 529
83, 750
1115, 110
95, 600
44, 800
187, 700
81, 203
66, 667
119, 697
12, 697
12, 697
12, 697
12, 697
12, 697
12, 697
12, 697
12, 690
12,
| Number of splits of air cur- | 12 24 12 00 12 00 12 02 12 12 12 12 12 12 12 12 12 12 12 12 12 |
| Power used | Steam, St |
| nan to smay | Guibal, |
| Water gauge developed-in | 0 040004 0000-10-10-4-10-4 |
| Number of revolutions per minute | 08.86.56.56.56.56.56.56.56.56.56.56.56.56.56 |
| Depth of blades in feet | ကားကလယ္ကလုယ္လက္လက္လက္လည္ လွတ္လယ္ရန္လက္ ထိ နယ္ က န ကာတက္လက္လည္ |
| Width of blades in feet | იი - აი აი ა ი ა ი ა ი ა ი ა ი ა ი ა ი ა |
| Diameter of fan in feet | 88828828282828888 |
| Method of ventilation | Fan. Fan. Fan. Fan. Fan. Fan. Fan. Fan. |
| Gaseous or non-Easeous | Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, |
| Kind of opening. | Slope |
| Names of Operators and Mines | Philadelphia and Reading Coal and Iron Co. No. 1 West Brookside. No. 5 East Brookside. Lincoln No. 2. Lincoln No. 2. Otto Red Ash, Otto White Ash Wadesville. Good Spring No. 1. Good Spring No. 3. Phoenix Park No. 3. Cliendower. Taylorsville. West Glendower. West Glendower. West Glendower. John Veith No. 2. |
| Names o | Philadelphi Coal a No. 1 West No. 5 East Lincoln No. Lincoln No. Lincoln No. Otto Red As Otto White A Wadesville. Good Spring Good Spring |

| | n . | 11 | 11 | - () | | n | | | 11 | 1 1 | |
|--|----------------------------------|---------------------|------------------------|-----------|---|--|----------------------------------|---------------------------------|------------------|---|--------------------------------------|
| 256 | 315 | 257 | 424 | 330 | 672 | | 301 | | 307 | 1,143 | 718 |
| 200 | 25 | 236 | 150 | 22 | 62 | | 199 | 33 | 72 | 83 | 147 |
| 61, 275 | 163,617 | 61,000 | 52,300 | 11,400 | 35, 543 | | 21,560 | | 39, 000 | 33,610 | 106,070 |
| 51,200 | 159, 200 | 69,400 | 63,650 | 8,600 | 35, 500 | | 19,600 | | 22, 780 | 33,147 | 105, 565 |
| 53,084 | 161, 168 | 52,300 | 66, 100 | 10,900 | 35,850 | | 20,510 | | 20,000 | 32,740 | 105,060 |
| ro 63 | | | 2 | es | | | | | 61 | m | |
| Steam, | Steam, | Steam, | Steam | Steam, | Steam, | | Steam, | | Steam, | Steam, | Steam |
| Guibal, | Guibal, | Gulbal, | Guibal, | Guibal, | Guibal, | | Guibal, | | Guibal, | Guibal, | Guibal, |
| | 1.2.3 | 21.21.00 | 1:3 | 6. | 1.1 | | 1.5 | | | s. | ro |
| 55 58 | 30.80 | 2888 | 63 | 13 | 45 | | 120 | | 99 | & | 22 |
| 3.6 | 5.10 | 400 | 6.3 | 3.6 | 8.70 | | 63 | | 4. | 4.2 | 5.9 |
| ю ю | 1-1-t- | . 7-6. | 8.15 | 4 | 4.0 | | رى د | | 4.2 | 6.4 | 9 |
| 14 14 | 18 | 15 | 24 | 12 | 928 | | 10 | :: | 12 | 16 | 50 |
| Fan,) Fan, | Fan, Fan, | Fan, | Fan, | Fan, | Fan, Fan, | Natural, Natural, Natural, | Fan, Natural, Natural, | Natural, Natural, | Fan, | Fan, | Fan, |
| Gaseous, Non-gas. Gaseous, | Gaseous, Gaseous, Gaseous, | Gaseous, Gaseous, | Gaseous, Gaseous, | Gaseous, | Gaseous, Gaseous, Gaseous, | Non-gas. Non-gas. Non-gas. | Non-gas. Non-gas. Non-gas. | Non-gas. Non-gas. | Gaseous, | Gaseous, | Non-gas. |
| Shaft, Drift, Slope, | Shaft, | Slope, | Slope, | Drift, | Drift, Shaft, | Slope, Slope, Drift, | Slope, | Slope, | Slope, | Slope, | Drift, |
| St. Clair, St. Clair, St. Clair, St. Clair, | Lytle, Lytle, Lytle, Lytle, | Buck Run, Buck Run, | Oak Hill, Oak Hill, | Oak Hill, | Pine Hill Coal Co. Pine Hill, Pine Hill, Pine Hill, | Mt. Hope, Mt. Hope, Mt. Hope, Mt. Hope, | Darkwater Coal Co. Newcastle, | John H. Davis Co. Elisworth, | E. White and Co. | Black Diamond Anthracite Co. Black Diamond, | Lehikh Valley Coal Co. Blackwood, |

TABLE 1.-Operators, location of collieries, railroads, etc

| Railroad to Mine | P. and R. | P. and R. | Pennsylvania | P. and R. | P. and R. | Pennsylvania | P. and R. | P. and R. | P. and R. |
|-----------------------------------|--|--------------------|-----------------------|--------------------------------|--------------------------------|--------------------|---|---------------------------|---|
| Post Office | Pottsville, | Pottsville, | Minersville, | Minersville, | Minersville, | Minersville, | William Fetherman Tremont, | Minersville, | |
| Name of Superin- tendent | Reese Tasker, | William T. Smyth, | Arthur Kennedy, | Wm. R. Wilson, | Chas. A. Schwenck | W. B. Richards, | | D. H. McGee, Minersville, | 0 |
| Post Office | Pottsville, | | Wilkes-Barre, | | Chas. A. Schwenck Minersville, | Scranton, | Schuylkill, Frederick Warnke, Scranton, | | Pottsville, |
| Name of General Superintendent | W. J. Richards, | | Robert A. Quin, | | Chas. A. Schwenck | C. B. Sturgis, | Frederick Warnke, | | S. D. Kynor, Pottsville, |
| County | Schuylkili, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, |
| Names of Operators and Collberles | Philadelphia and Reading Coal Brookside and Iron Co. Lincoln. Otto. Wadesville. Wadesville. Good Spring Phoenix Park Glendower. Pine Knot. John Veith. Middle Treek washery. Radina washery. Radina washery. | St. Clair Coal Co. | Lytle, Lytle Coal Co. | Buck Run Coal Co. Buck Run, | Oak Hill Coal Co. | Pine Hill Coal Co. | Snyder and Co. Lorberry washery. | Stoddart Coal Co. | Mt. Hope, |

| Pennsylvania | P. and R. | P. and R. | P. and R. | P. and R. | P. and R. | P. and R. | Lehigh Valley |
|----------------------------------|--|---------------------------------------|---|--|--|---|--|
| Schuylkill, Tamaqua, | Schuylkill, John H. Brooke, Liewellyn, | Schuylkill, Jno. H. Davis, St. Clair, | Pottsville, | | Schuylkill, F. P. Christian, Pottsville, Pottsville, | Schuylkill, W. A. Snyder, Pottsville, P. and R. | Schuylkill, S. D. Warriner, Wilkes-Barre, Frank E. Shedd, Blackwood, Lehigh Valley |
| James Tinley, | | | Schuylkill, Richard White, Pottsville, Richard White, Pottsville, | Schuylkill, B. E. Kingsley, Minersville, | | W. A. Snyder, | Frank E. Shedd, |
| | Llewellyn, | St. Clair, | Pottsville, | Minersville, | Pottsville, | , | Wilkes-Barre, |
| _ | John H. Brooke, | Jno, H. Davis, | Richard White, | B. E. Kingsley, | F. P. Christian, | | S. D. Warriner, |
| Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, |
| Darkwater Coal Co. Newcastle, | Silverton Coal Co. | John H. Davis Co. | E. White and Co. | East Ridge Coal Co. | Black Diamond Anthracite Co. | Pottsville Coal Co. Pottsville washery, | Lehigh Valley Coal Co. Blackwood, |

.Abandoned.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder and dynamite used, etc.

| Names of Operators and Collieries County | Philadelphia and Reading Coal and Iron Co. Brookside, Lincoln, Otto, Wadesville, Wood Spring, Phenk Fank, Phenk Fank, Phenk Fank, Phenk Venk, Phenk Venk, John Veith, | | Middle Creek washery, Anchor washery, Kalmia washery, Rausch Creek washery, | | Totals, | St. Clair, St. Clair Coal Co. Schuyikill, | St. Clair washery, Schuylkill | Totals, |
|--|---|-------------|---|---------|-----------|---|-------------------------------|---------|
| Number of tons of coal shipped to market | 590, 898 475, 885 201, 156 214, 098 101, 098 101, 098 1, 099 1, 099 | 1,874,588 | { 64,572 65,148 24,637 24,004 | 178,361 | 2,052,949 | 376,422 | 47,284 | 423,706 |
| Number of tons used at collierles for steam and heat | 72, 592 28, 926 48, 619 28, 672 18, 386 24, 849 33, (01 | 259,445 | 8, 144 3, 931 2, 185 2, 110 | 16,370 | 275,815 | 74,140 | 4,610 | 78,750 |
| Number of tons sold to local trade and used by employes | 7, 466 1, 796 4, 181 4, 916 1, 577 353 | 20,289 2, | 523 | 523 | 20,812 2, | 1,944 | | 1,944 |
| Total production of coal in tons | 663, 490 512, 277 250, 971 246, 951 237, 711 109, 348 6, 057 | ,154,322 | 73, 239 69, 079 26, 822 26, 114 | 195,254 | ,349,576 | 452,506 | 51,894 | 504,400 |
| Number of days worked (Totals are ages, not including washeries) | 88 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | 272 5, | 151 135 135 59 | 124 | 272 5, | 270 | 154 | 270 |
| Number of employes | 1,213 808 721 632 814 | 738 | 54 52 54 | 215 | 953 | 780 | 25 | 806 |
| Number of fatal accidents Number of non-fatal accidents | 184483 :14 | 15 34 | | | 15 34 | 4 | | 4 |
| Number of kegs of powder used | 3,548 10,649 3,857 2,768 4,880 796 493 | 26,991 | | | 26,991 | 11,826 | | 11,826 |
| Number of pounds of dynamite used. | 67,815 13,289 52,592 63,754 87,444 23,444 14,605 13,175 21,275 | 359,490 | | | 359,490 | 1 3,871 | | 13,871 |
| Number of horses and mules | 25.00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 576 | 1 | 1 | 577 | 100 | : | 200 |

tAbandoned.

*No time given.

tNo coal mined.

| Lytle, Lytle Coal Co. | Schuylkill, | 319,343 | 60,991 | 4,986 | 385,320 | 282 | 761 | 2 | 15 | 1,975 | 23,825 | 00 21 |
|----------------------------------|-------------|-------------|---------|--------|-----------|-----|--------|----|------|---------|----------|----------|
| Buck Run, Buck Run Coal Co. | Schuylkill, | 244,085 | 21,900 | 809 | 266,593 | 271 | 465 | 4 | 00 | 3,175 | 63, 325 | 0.9 |
| Oak Hill, Oak Hill Coal Co. | Schuylkill, | 152, 436 | 18,000 | 4,165 | 174,601 | 264 | 461 | 63 | 2 | 4,164 | 27,585 | 4. |
| Pine Hill, Pine Hill Coal Co. | Schuylkill, | 109,044 | 10, 485 | 635 | 120, 164 | 151 | 480 | - | 69 | 4,657 | 17,575 | 88 |
| Black Heath washery, | Schuylkill, | 24,120 | 762 | 67 | 24,884 | 268 | 19 | : | | | | |
| Totals, | | 133,164 | 11,247 | 637 | 145,048 | 151 | 499 | 1 | 8 | 4,657 | 17,575 | 38 |
| Snyder and Co. Lorberry washery, | Schuylkill, | 90,736 | 2,400 | 105 | 93, 241 | 223 | 55 | | | | 200 | 62 |
| Wolf Creek washery, | Schuylkill, | 73, 479 | 4,880 | 97 | 78,456 | 244 | 35 | 1 | - | | | 67 |
| Mt. Hope, Mt. Hope Coal Co. | Schuylkill, | 63, 826 | 5,000 | 7,085 | 75,911 | 245 | 179 | က | 4 | 625 | 13,150 | 123 |
| Darkwater Coal Co. | Schuylkill, | 33,866 | 10,950 | 17 | 44,833 | 159 | 202 | 2 | es | 466 | 10,525 | 14 |
| Silverton Coal Co. | Schuylkill, | 30,319 | 11,466 | 178 | 41,963 | 131 | 222 | | 1 | | 18,000 | 202 |
| Ellsworth, John H. Davis Co. | Schuylkill, | 34,346 | 3,000 | 809 | 37,954 | 289 | 110 | | | 150 | 9,000 | 14 |
| Howard, E. White and Co. | Schuylkill, | 27,955 | 7,200 | 140 | 35, 295 | 160 | 143 | - | 4 | 375 | 4,825 | 13 |
| East Ridge, | Schuylkill, | | 3,100 | - 89 | 25,118 | 132 | 97 | - | | 8 | 1,825 | 12 |
| Black Diamond Anthracite Co. | Schuylkill, | 5,442 | 6,100 | | 11,542 | | 81 | | | 166 | 1,025 | |
| Pottsville washery, | Schuylkill, | 8,773 | 969 | 253 | 9,722 | 200 | 36 | | | | | |
| Lehigh Valley Coal Co. | Schuylkill, | 5,947 | 3,615 | 153 | 9,715 | 39 | 284 | 60 | 61 | 647 | 23,944 | 12 |
| Grand totals, | | 3, 722, 322 | 525,110 | 41,856 | 4,289,288 | 195 | 10,388 | 44 | 1.92 | 65, 277 | 588, 165 | 626 |

TABLE 2.—Recapitulation

| REPORT OF THE | DEPARTMENT OF MINES |
|--|---|
| Number of horses and mules | 7.88 8.88 8.88 8.88 8.88 8.88 8.88 8.88 |
| Number of pounds of dynamite used, | 359, 440 131, 821 27, 338 27, 338 17, 575 17, 575 19, 675 1, 625 1, 625 1, 625 1, 625 1, 625 1, 625 23, 944 |
| Number of kegs of powder used | 28, 991 11, 826 1, 975 1, 975 |
| Number of non-fatal accidents | #410000 H40H 4 07 6 |
| Number of fatal accidents | 10 4 F 4 63 H 100 63 HH 100 4 |
| Number of employes | 5.93.3 8.65.7 761 761 465.1 465.1 465.1 480.1 200.2 20 |
| Number of days worked (Totals are averages, not including washeries) | 2272 2283 2283 2422 2422 2422 2422 2422 242 |
| Total production of coal in tons | 2, 26.4 de la constant de la constan |
| Number of tons sold to local trade and used by employes | 20.812 1.944 4.986 6.08 6.08 1.057 7.085 1.085 1.58 1.58 1.58 1.58 1.58 1.58 1.58 1. |
| Number of tons used at collieries for steam and heat | 25.5.75 27.5.5.75 27.5.5.75 27.5.5.75 27.5.7 |
| Number of tons of coal shipped to market | 2. 52. 52. 52. 52. 52. 52. 52. 52. 52. 5 |
| County | Schuylkill, |
| Names of Operators | Philadelphia and Reading Coal and Iron Co. St. Clair Coal Co. Lytte Coal Co. Buck Run Coal Co. Oak Hill Coal Co. Pine Hill Coal Co. Pine Hill Coal Co. Steedard Coal Co. Darkwater Coal |

TABLE 2.—PART 2.

| Der | Quantity delivered to surface minute—gallons. | 11.400 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 9 23,208 8 |
|-------------------|---|--|------------|
| .ete. | Capacity in gallons per min | 21,029 1,509 1,509 1,509 3,400 1,309 | 38,349 |
| Suja | Number of pumps delive | 9 m mann m | 47 |
| | Total horse power. | 30,276 3,551 6,872 729 950 1,290 1,290 1,290 1,200 1,500 1,500 1,500 1,500 1,500 | 48,855 |
| Ils 1 | Number of steam engines o | 125 125 127 127 128 129 129 129 129 129 129 129 129 129 129 | 314 |
| ives | Electric. | 44.00 67 | 6 |
| Locomotives | Air. | | : |
| <u> </u> | Steam | 8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 29 |
| | Total horse power. | 19, 730 3, 150 1, 50 1, | 38,676 |
| Number of Boilers | Horse power. | 23.23 1.290 1.290 1.290 1.290 1.290 | 33,066 |
| ber of | Tubular. | 801 800 800 800 800 800 800 800 800 800 | 227 |
| Num | Horse power. | 4 140 450 70 80 450 | 5,610 |
| | Cylindrical. | 0°2 % 4.61% | 161 |
| | County | Schuylkill, | |
| | Names of Operators | Philadelphia and Reading Coal and Iron Co. St. Clair Coal Co. Back Coal Co. Back Hill Coal Co. Pine Hill Coal Co. Snyder and Co. Snyder and Co. St. Eddard Coal Co. Nt. Eddard Coal Co. St. Eddard Coal Co. St. Eddard Coal Co. St. Eddard Coal Co. E. White and Co. E. White and Co. E. White and Co. East Ridge Coal Co. East Ridge Coal Co. East Ridge Coal Co. East Ridge Coal Co. East Ridge Coal Co. East Ridge Coal Co. East Ridge Coal Co. East Ridge Coal Co. East Ridge Coal Co. East Ridge Coal Co. East Ridge Coal Co. East Ridge Coal Co. East Ridge Coal Co. East Ridge Coal Co. | Totals, |

TABLE 3.—Number of each class of employes inside and outside of mines

| 11 - | | | Ò | | | | |
|---------|-----------------------------------|---|-------|---|---------|-------|-------------|
| | Grand total inside and outside | 1, 213 1, 121 1, | 5,738 | 62 32 54 54 | 215 | 5,953 | 780 |
| | Total outside | 25.22.22.25.25.25.25.25.25.25.25.25.25.2 | 1,840 | 52855 | 215 | 2,055 | 230 |
| | All other employes | 231 1149 1149 1123 123 94 127 19 | 1,062 | 26 26 28 33 | 143 | 1,205 | 166 |
| | Вооккеерегs and clerks | 63 53 63 63 63 53 63 ···· | 21 | | 4 | 25 | 4 |
| | Slate pickers (men) | 00000000 | 69 | 1 2 | 9 | 12 | 13 |
| Outside | Slate pickers (boys) | 144488889 | 3411 | 135 2 2 3 | 32 | 372 | 46 |
| O | Engineers and firemen | 52.22.22.22.22.21. | 261 | @ m 01 0 | 8 | 281 | 388 |
| | Blacksmiths and carpenters | id a se co co co co co co co co co co co co co | E | H 01 :00 | 9 | 77 | 20 |
| | Foremen | 4010101010000 | 16 | нынн | 4 | 20 | 63 |
| | Superintendents | | : | | 1 | | - |
| | sbiant IstoT | 22.88.88.88.88.88.88.88.88.88.88.88.88.8 | 3,898 | | | 3,898 | 490 |
| | All other employes | 299 191 101 101 101 101 101 101 | 887 | | | 288 | 116 |
| | Company men | 10.00 4.00 65.00 10.00 1 | 440 | | | 440 | |
| | Pumpmen | rp -4 -rv | 14 | | | 14 | 00 |
| Inside | Door boys and helpers | ಹ್ಟಾಲ್ಲೂ | 1.0 | | | 57 | 19 |
| Ins | Drivers and runners | 811 823 113 113 6 | 267 | | | 267 | 42 |
| | Miners' laborers | 98 196 73 71 71 69 89 121 | 715 | | | 715 | 126 |
| | Miners | 222 3228 2652 212 1196 176 41 | 1,412 | | | 1,442 | 172 |
| | Fire bosses and assistants | # # # # # # # # # # # # # # # # # # # | 20 | | 1 : | 2.6 | 10 |
| | Assistant mine foremen | ରାରା : : : : : : | 4 | | 1 | 4 | 1 |
| | Mine foremen | | 100 | | 1: | 13 | |
| | County | Schuylkill, | | Schuylkill, | | | Sehuylkill, |
| | Names of Operators and Collleries | Philadelphia and Reading Coal Brookside, and Iron Co. Brookside, Co. Otto Wadesville, Coor Spring, Phoenix Park, Phoenix Park, Shook Spring, Phoenix Park, Solon Veith, John Veith, | | Middle Creek washery, Anchor washery, Kalmia washery, Rausch Creek washery. | Totals, | | St. Clair, |

| 25 | 202 | 761 | 465 | 461 | 480 | 499 | 92 | 55.5 | 179 | 202 | 252 | 110 | 143 | 97 | 81 | 36 | 284 | 10,388 |
|--------------------|---------|-----------------------|-------------|-------------------|------------------------------------|---------|----------------------------------|--|-------------------|----------------------------------|--------------------|-------------------|--------------------------|-------------|---|---------------------|-----------------------------------|---------------|
| 25 | 315 | #(a | 148 | 134 | 171 | 190 | 22 | 35 | 99 | 68 | 02 | [- | 80 | 61 | 22 | 38 | 130 | 3,786 |
| 19 | 185 | 94 | 82 | 999 | 68 | 88.1 | 39 | 21 | 33 | 52 | 28 | 45 | 29 | 47 | 24 | 17. | 63 | 2,102 |
| : | 4 | 4 | 9 | 4 | 2 : | 2 | - | - | - | | 63 | - | | 61 | - | - | \$3 | 58 |
| <u></u> | 13 | 22 | 14 | 63 | 18 | 19 | | 1 | 4 | 4 | IÔ | 69 | | -41 | | 2 | 22 | 197 |
| 4 | 20 | 44 | 20 | 36 | 00 01 | 09 | 00 | က | 00 | 17 | 13 | 14 | 18 | 00 | 19 | 10 | 15 | 710 |
| 63 | 40 | 21 | 14 | 26 | 171 | 18 | t- | 9 | 13 | t- | 16 | 00 | 00 | 9 | rů. | 2 | = | 489 |
| : | 20 | 15 | 10 | 00 | 9: | 9 | 2 | | 10 | 9 | 4 | 4 | 6.1 | ಣ | - | c1 | 2 | 176 |
| : | 67 | | | " | | 2 | 63 | | - | 1 | - | | | - | - | - | | 38 |
| Ī | - | 1 | " | - | - | - | - | - | 1 | - | - | - | - | - | - | - | i | 16 |
| | 490 | 557 | 317 | 327 | 309 | 300 | | | 113 | 113 | 152 | 33 | 85 | 25 | 29 | | 154 | 6,642 |
| | 116 | 125 | 72 | 6 | 48 | 4 | | | 15 | 33 | 13 | | 21 | 4 | | | | 1,343 |
| | | 69 | 62 | 355 | 10 | 10 | | | 00 | 10 | \$ | 6 | 9 | 63 | 2 | | 20 | 675 |
| | 00 | | 4 | 4 | 8 | 63 | | | | | 2 | - | C1 | 01 | - | | | 41 |
| : | 19 | 7 | 9 | rū | t- | t- | | | | | | | - | | | | 4 | 106 |
| 1 | 53 | 42 | 8 | 22 | 45 | 45 | | | 7 | 8 | 18 | 4 | 60 | 60 | 63 | | 7 | 200 |
| : | 126 | 47 | 61 | 78 | 65 | 9 | | | 40 | 97 | 22 | 00 | 15 | 00 | | | | 1,211 |
| | 172 | 255 | 118 | 163 | 130 | 130 | | | 40 | 34 | 77 | 00 | 36 | 22 | 67 | | 90 | 2,595 |
| | 10 | | 00 | 0 | 60 | 63 | 1 :. | | | - | 0 | H | 11 . 1 | | - | | - | 125 |
| <u>:</u> | | 6.1 | - | : | 61 | 6.3 | | | 2 | | | - | | | | | - | 13 |
| <u>:</u> | 67 | | | - | - | - | | | - | - | | - | - | | - | | - | 51 |
| Schuylkill, | | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | |
| St, Clair washery, | Totals, | Lytle, Lytle Coal Co. | Buck Run, | Oak Hill Coal Co. | Pine Hill, Black Heath washery, | Totals, | Snyder and Co. Lorberry washery, | Stoddart Coal Co. Wolf Creek washery, | Mt. Hope Coal Co. | Darkwater Coal Co. Newcastle, | Silverton Coal Co. | John H. Davis Co. | E. White and Co. Howard, | East Edge, | Plack Diamond Anthracite Co. Black Diamond, | Pottsville washery, | Lehigh Valley Coal Co. Blackwood, | Grand totals, |

TABLE 3.— Recapitulation

| Outside | All other employes Total inside Eugineers and carpenters Eugineers and fremen | 887 8.898 20 77 281 125 557 1 1 1 10 11 11 11 11 11 11 11 11 11 11 | 1,343 6,6/2 16 38 176 489 710 |
|---------|---|--|-------------------------------|
| Inside | Company men | 4.0 4.1 | 106 41 675 |
| In | Assistant mine foremen Fire bosses and assistants Miners' laborers Drivers and runners | 4 69 1,442 775 267 49 9 118 61 28 61 12 15 6 9 12 15 6 9 12 15 6 9 12 15 6 9 12 15 6 9 12 15 6 9 12 15 15 6 1 15 6 | 24 2,532 1,211 |
| | O mine toremen | Schuylkill, 2 | - |

TABLE 3.—PART 2.

| 9 | Total | 2586 2586 2586 2586 2586 | 270 | 782 | 271 | 264 | 151 | 245 | 159 | 131 | 289 |
|----------------------------------|-----------------------------------|--|-------------------------------|-----------------------|--------------------|-----------------------------|-------------|-----------------------------|--------------------|-------------|------------------------------|
| | December | 23 22 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 24 | 22 | 23 | 22 | | 22 | 8 | | 83 |
| | November | 522222222 | 23 | 53 | 24 | 24 | | 53 | 21. | | 22 |
| | October | \$8888888 8 | 23 | 52 | 23 | 52 | | 22 | 22 | | 35 |
| 3reaker | September | 2222222 2422221 25242221 | 23 | 24 | 24 | 41 | | 12 | | 14 | 50 |
| ed in E | ısngny | 88688 | 25 | 26 | 26 | 52 | 19 | 21 | | 13 | 26 |
| Number of Days Worked in Breaker | July | 88888888 | 19 | 19 | 20 | 17 | 19 | 16 | | 13 | 8 |
| of Day | 1 nue | 888884R8 | 23 | 24 | 25 | 23 | 21 | 67 | | 17 | 26 |
| Vumber | May | ********* | 22 | 56 | 26 | 23 | 22 | 23 | 12 | 16 | 26 |
| 1 | lingA | 8882842 | 22 | 24 | 55 | 191 | 10 | 118 | 80 | 14 | 25 |
| | Матећ | 1222822 | 25 | 26 | 66 | 23 | 20 | 22 | 22 | 14 | 133 |
| | Рергиагу | 118 118 126 136 | 17 | 30 | 15 | 16 | 21 | 18 | 21 | 44 | 61 |
| | January | 4888418 | 12 | 83 | 13 | 1 | 19 | 16 | 12 | 17 | 22 |
| | County | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill |
| | Names of Operators and Collieries | Philadelphia and Reading Coal and Iron Co. Brookside, Lincoln, Outto. Watto. Good Spring, Chantow Fark, Chantower, | St. Clair, St. Clair Coal Co. | Lytle, Lytle Coal Co. | Buck Run, Coal Co. | Oak Hill, Oak Hill Coal Co. | Pine Hill, | Mt. Hope, Mt. Hope Coal Co. | Darkwater Coal Co. | Silverton, | Ellsworth, John H. Davis Co. |

TABLE 3.-PART 2.-Continued.

| | Total | 160 | 132 | 119 | 660 |
|----------------------------------|--------------------|--------------------------|---------------------------------|-------------------------------|-----------------------------------|
| | December | 6 | | | 12 |
| | November | 229 | | | 40 |
| | October | | | | |
| 3reaker | September | 18 | | | |
| ted in E | JsuzuA | 20 | - | 67 | |
| Number of Days Worked in Breaker | Yul | 12 | 11 | 14 | |
| of Day | June | 12 | 21 | 21 | |
| Number | Мау | | 19 | 18 | |
| | lingA | | 18 | 9 | |
| | Матер | 15 | 22 | | |
| | February | 10 | 15 | | |
| | January | | 19 | | |
| | County | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, |
| | Names of Operators | Howard, E. White and Co. | East Ridge, East Ridge Coal Co. | Black Diamond, Anthracite Co. | Blackwood, Lehigh Valley Coal Co. |

TABLE 4.—Fatal accidents inside and outside of mines

| | Nature and Cause of Accident in Brief | Seriously scalded by the explosion of boiler. Died January 20 at Pottsville | Hospital. Outside. Killed by fall of slate while bracing and | weeding a sero consoling Suffocated by rush of clay while working at face of gangway. They attempted to cross an old breast that was full of | Killed by fall of frozen culm. He ventured too far under an overhanging piece and it fell on him. Outside, | Killed by fall of rock while descending slope to their places of work. | Killed by fall of slate. He and his part- ner tried to pull the piece down, but could not do it. Later on the piece fell | on them. Killed by a piece of coal following him down the breast manway. | Killed by fall of slate while standing underneath it on the gangway. The | repairman was preparing to timber in and had one prop hole sunk. Fatally squeezed between mine car and rib of turnel while endeavoring to cross from one bumper to the other. Died the | next day. Rilled by being run over by mine car. He gave the team he was driving a stroke of his whip before starting, which caused them to start in haste. He attempted to get on the car and fell. |
|--|---------------------------------------|---|--|--|--|--|--|---|--|--|---|
| ie or mines | County | | | Schuylkill, | | Schuylkill, | | | | Schuylkill, | |
| IABLE 4.—Fatal accidents inside and outside of mines | Name of Mine | Wolf Creek wash- | St. Clair, | Mt. Hope, Mt, Hope, | East Ridge, | Lytle, | Phoenix Park, | Good Spring, | New Castle, | Lytle, | Blackwood, |
| 103 | Number of orphans | 63 | 61 | :: | : | :: | in | | 44 | | |
| inei | Swobiw to redmuN | H | Н | H : | : | | : | Н | - | : | : |
| acc | Married or single | K | M. | Z vi | υż | o z z z | άÄ | M. | M. | vi | υż |
| ra.ı | Age | 36 | 31 | 35. | 00 | \$4 0 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | 33 | 40 | 37 | 24 | 18 |
| DLE 4Fa | noitsquooO | Fireman, | Miner, | Miner, | Laborer, | Repairman,. Laborer, Miner, | Miner, | Miner, | Driver, | Laborer, | Driver, |
| TA | Vationality | American, | Slavonian, | Lithuanian,. Lithuanian,. | | | German, | American, | Polish, | Slavonian, | Hungarian, |
| | Name of Person | Henry Confair, | Wasil Dunski, | William Posseskie, | Paul Looks, | Danfel Desgan, Henry B. Moore, Pete Mostofskie, George Cultash. | George Marshall, | Joseph Gauntlett, | Albert Master, | Adam Drusk, | Michael Brushkle, |
| | Date of accident | Jan. 18 | 21 | 61 61 | Feb. 9 | 888886 | 27 | March 1 | 14 | *** #1 | 7. |

TABLE 4.—Continued

| , | 1 | | | | | | | | | | | | O | 200 |
|-----------|---------------------------------------|--|---|-------------------|---|--|--|---|---|---|--------------------|---|-----------|---|
| | Nature and Cause of Accident in Brief | Killed by fall of slate while working at | gangway face. Killed by falling down the shaft, while | | car to the other, and slipped and fell on the track. Killed by blast. While walking through Killar by blast. While was explicated in the profiler. | the heading in the opposite pillar. Killed in endeavoring to oil shaker cams | while in motion. Outside. Killed by fall of coal while filling a car | from gangway pillar. Killed by mine car while on his way to | Work in the morning, in the gangway. He failed to notice the warning given by the driver and others. Fatally injured May 9 by blast. Died | June 3. His partner ignifed a blast on the inside pillar of breast and failed to notify Sinders, who was drilling hole on the inside rib. | | bank outside. A loaded car that was standing back on the track ran in and squeezed him against the car on the dump. Outside | | Killed by being caught between mine car and timber. |
| | County | | | | | | | | Schuylkill, | | | | | |
| Continued | Name of Mine | Wadesville,) | Pine Knot, | Lincoln, | Pine Hill, | Otto, | St. Clair, | Otto, | Oak Hill, | 0+10 | Good Spring, | | Buck Run, | Mt. Hope, |
| | Number of orphans | 63 | | - | | - : | 61 | 4 | : | | | | | |
| | swobiw to redmun | | : | - | | - : | - | | : | - | - : | | : | ÷- |
| | Married or single | | vi | M. | vi | M. | M. | MI. | vi | > | | | | :_ vi |
| | 93A | 27 | 25 | 00 | 15 | 60 | 23 | 10 | 22 | - 04 | | | | 12 |
| | • noitsquesO | Miner, | Topman | Driver, | Miner, | Jig runner,. | Laborer, | Laborer, | Miner, | Miner. | | | Miner, | Driver, |
| | Vationality | Russian | American, | American, | Lithuanian, . | English, | Slavonian, | Welsh, | Lithuanian,. | Tyrolean, | | | | American, |
| | Name of Person | Jerry Brunner, | Frank Bambrick, | James Schreffler, | Anthony Wenskonnis, | Claude White, | John Stolka, | John Davis, | Anthony Sinders, | Michael Stablum, | Daniel Nicewenter, | , | | George Kyan, |
| | | 16 | 22 | 10 | 2.7 | 65 | ¢1 | 52 | 6 | 10 | 530 | c | | 14 |
| | talopios to ets([| March 16 | | April | | | May | | | June | | | July | |

| 110. | | • | | | _ | *** | | | - | | | | |
|--|--|---|---|---|---|---|---------------------------------------|---|--|---|---------------------------------------|--|---|
| Smothered in buckwheat coal chute. Out- | Fatally burned by explosion of gas. Died | Killed by fall of coal while changing a | Killed by being caught between mine car | Fatally injured by explosion of gas. Died | Killed by fall of rock at face of breast. Killed by premature explosion of blast at | Since the present of clay at battery. Killed by fall of coal while in the act of | Patally burned by gas explosion. Died | Killed by fall of slate while filling a car | Fatally injured by Talling from scaffold | Killed by fall of slate in monkey while | Drowned in chulch by inrush of water, | Killed by falling down breast manway. Killed by being run over by railroad cars t near breaker. Outside. | |
| | | | | | | Schuylkill, | | | | | | | |
| Oak Hill, | Miner, 35 M. 1 Phoenix Park, | 1 2 St. Clair, | Lincoln, | 5 Brookside, | 1 3 St. Clair, | Buck Run, | Buck Run, | 4 Lytle, | 1 John Veith, | Otto, | New Castle, | Blackwood | |
| 1 | : | 67 | H | 10 | eo : | 10 69 | н | 4 | : | 1 1 | ro. | 7 | |
| <u>:</u> | - | | | | | | | | | | | in | _ |
| ν <u>ά</u> | M | ZZ. | M. | M. | is K | M.M. | 27 · M. | M | M | M. | M. | Z Š | - |
| r, 14 | | .:. | 23 | | | 4.60 | | 3(| | 20 | es 000 | | - |
| Slate picke | | Miner, 36 Miner, 43 | Topman, | Miner, | Laborer, 36 Miner, 35 | Starter, 48 Miner, 35 | Miner, | Laborer, | Laborer, 35 M. | Laborer, | Miner, | Miner, | |
| American, | German, | Polish, | American, | American, | Slavonian, | American, Starter, German, | American, | Lithuanian,. | Slavonian, | American, | Polish, | Austrian, Miner, 32 American, Laborer, 33 | |
| 22 Felix Saymon, American, Slate picker, 14 S. Oak Hill, | Albert Fisher, | Stiney Buchloskey, | Charles Fessler, | 2 John Gamper, American, Miner, 48 | Wociech Skobish, | James Ryan, | Michael Baylon, | Louis Oculitas, Lithuanian, Laborer, 36 M. | Geo. Washko, | John Richards, | Joseph Wable, | Angelo Zerner, Charles Lewis, . | |
| 21 | 23 | -130 | ~ % | c1 | 10.00 | 11 | 10 | 21 | 22 | 29 | 14 | 18 | |
| July | Aug. | Sept. | | Oct. | | | Nov. | | | | Dec. | | |

TABLE 5.-Non-fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Foot crushed by fall of slate while pre- | paring for set of timber. Leg fractured by mine care. Seriously scalded about the body by | boiler explosion. Outside. Injured by fall of coal at face of breast. Log fractured. Run over by ash dumper. | ~ | scraper line, Outside, | of timber and fell on rail. Outside; Collar bone fractured. Caught between | mine car and prop. Shoulder dislocated by explosion of gas. Ribs fractured by explosion of gas. Leg fractured by fall of rock at face of | breast. Skull fractured by fall of slate while as- | sisting to erect set of timber. Hand cut and broken by fall of coal. Toes crushed. He was removing a cog | wheel and it fell on him. Outside. Leg fractured. While prying down loose top at face of breast he stumbled and | fell. Back injured by fall of slate. Hands and face slightly burned by ex- | plosion of gas. Leg fractured by pleas of solate in breast. Leg fractured by pleas of coal from blast. Leg fractured. Caught in fly wheel of | breaker engine. Outside. Hands crushed while loading rock dumper Piece of rock slipped from chute and struck him on the hands. Outside. |
|---------------------------------------|--|---|--|-------------------|------------------------|---|--|---|--|--|--|---|---|
| County | | | | | | | | Schuylkill, | | | | | |
| Name of Minc | Pine Hill, | Lytle, Wolf Creek wash- | ery. Good Spring, | Lytle, | Otto, | Lincoln, | Wadesville, Wadesville, Wadesville, | Phoenix Park, } | Lytle, Lytle, | st. Clair, | Lincoln, Lytle, | Wadesville, Oak Hill, Phoenix Park, | Otto, |
| Married or single | × | တ် တ် | Z vi | υż | M. | M. | EZE | M. | wini | M. | Z vi | ži vi vi | M. |
| 984 | 31 | 128 | 35 | 25 | 69 | 39 | 3333 | 24 | 18 | 40 | 30 | E 4 01 | eo |
| noitequooO | Miner, | Doorboy, | Miner, | Machinist, | Carpenter, | Repairman, | Miner, Laberer, Laborer, | Laborer, | Miner, | Miner, | Miner, | Miner, Miner, Oller, | Laborer, |
| Nationality | Austrian, | Polish, | American | American | German, | American, | American, American, American, | Slavonian, | Russian, | Slavonian, | AmericanRussian | American, Littenanian, American, | Hungarian |
| Name of Person | Michael Vesta, | Theo. Shermonski, | Charles Reed, | John Schoffstall, | Ben, Garda r, | Frank Longle, | Frank Frankenstein John Curran. Fred Maley. | Michael Gutta, | Paul Zeresky, Charles Mugford, | Paul Slimah. | Andrew Neider, Stiney Covalovage, | John Williams, Anthony Gellavage, Eugene Donahoe, | John Lukash, |
| Date of accident | Jan. 11 | 7 / | ភានិ | 8 | Feb. 21 | 01 | March 1 | 65 | April 3 | 31 | May 5 | 13 5 9 | 61 |

| d) C . 5 | 8 C |
|---|--|
| Leg fractured by fall of roof in tunnel. Heads and face burned by gast. Head cut by fall of slate in breast, Scalded by steam from bliw off pipe while cleaning bolie flues. Outside a gractured. Fell under mine arrent Leg fractured while taking a wrench from front of car at bottom of plane. Side. Leg fractured while taking a wrench from front of car at bottom of plane. Side. Eag fractured by fall of coal. Back bruised. Caught between mine car and rip of grungway fall of coal. Arm fractured. Bumped between cars. Leg fractured. Bught between car wheel and pile of slate he had plaked. Arm and neck burned by explosion of gas. Arm and neck burned by explosion of gas. Face can dands burned by explosion of gas. Face and hands burned by explosion of Golar bone fractured by fall of top slate. Pelvis bone fractured by fall of coal. Wrist fractured by fall of coal. Wrist fractured by fall of coal. Wrist fractured by fall of coal. Wrist fractured by fall of coal. Wrist fractured by fall of coal. | Leg buttised by fall of rock while at work Leg buttised by fall of rock while at work Leg fractured while trying to unhitch mule. The truck cought him. Outside. Charles how fractured by fall of slate. Hands and face burned by fall of slate. Hands and face burned by fall of slate. Slightly burned. Went to face of breast with maked light, causing the gas to explode. Leg fractured. Mule fell on him and the car bunned him. Leg fractured. Foll with mine from ascending car and struck him. Leg fractured. Fell from mine car. Har fractured. Fell from mine car. Ariling to work. Beaunon unscrewed the car, from his lamp to ignite fuse. He ignited the gas, burning Doubehis and Head cut and bruised by fall of slate. He ignited the gas, burning Doubehis and Head cut and bruised by falling down breast manway. Ribs fractured by fall of slate. Ribs fractured. Kicked hy a mule. Leg fractured. Kicked hy a mule. Leg fractured. Kicked hy a mule. |
| ands and face burned by gas, and sand and burned by gas, and face burned by gas, calded by stand for burned by gas, cleaning bollet flues. Outside. Eg fractured. Fell under mine car, eg fractured, while taking a wre from front of car at bottom of plain. The car moved and caught him. C self. can be caught him. C self. can be care to consider the car moved and caught him. C self. can be called by fall of coal, ack burled. Caught between mine and rib of kangway, ack and leg injured by fall of coal, ack and leg injured by fall of coal, and pile of state he had pleked. The and neek burned by explosion of grim and neek burned by explosion of grim and neek burned by explosion of grim and neek burned by explosion of grim and neek burned by explosion of grim and neek burned by explosion of grace and hands burned by explosion of grace and hands burned by explosion of grace and hands burned by fall of top slevins bone fractured by fall of coal, lead and wrist cut by fall of coal, and brussed between mine car and in he was using C side-track fine car. | at face of breast. at face of breast. at face of breast. Tractured while trying to unh mule. The truck caucht him. Outsis fall a bar bone fractured by gas. Slightly burned by gas and face burned by gas. Slightly burned Went to face of breast, and face burned by gas. With naked light, causing the gas explode. Car bunned him. Car wheel came it get frectured. Mule fell on him and car bunned him. Trom ascending car and struck him. The gastly burned by explosion of get fractured. Fell from mine car. Trim fractured. Fell from mine car withing to work. Fell from mine car withing to work. Burned by gas. Baubon unscrewed cap from his lamp to fightle fuse, infinited the gas, burning Doubehis himself. Fead cut and brutsed by falling de breast manway. Fead cut and brutsed by falling do breast manway. Fead injured. Kicked by a mule. Fead cut and brutsed by a mule. Fead injured. Was setting piece of s and it fell on him. |
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| and face burned by fall of roof in fands and face burned by gas fands and face burned by gas fands and face burned by gas calded by steam from blive, outside, egg fractured. Fell under minn from from from for a and caught side. The car moved and caught side, egg fractured by fall of coal, sack bruised. Caught between and rive from from from from the gas fractured. Bumped between fractured. Bumped between fractured. Bumped between fractured. Gaught between fractured. Gaught between fractured. Gaught between fractured. Gaught between fractured. Gaught between and noise hoursed by call of the farm and neck burned by explose and hands burned by explose and hands burned by explose and hands burned by fall of class. Fast fractured by fall of class fand brussed between mine cal and man sing for side time of since the fall of call. | at face of breast. The truck cruth him the trying the mule. The truck cruth him mule. The truck cruth him will be been fractured by fall of fands and face burned by gas. Slightly burned Went to face with naked light, causing the sep fractured. Mule fell on him car bumped him. Car wheel of from ascending car and struck from ascending car and struck from ascending car and struck from ascending fractured. Fell from mine riding to work. Burned by gas. Baubon unsea cap from his lamp to fightled the gas, burning Doung Duest manway. Burned by gas, burning Dou fand out and bruised by fall fead injured. Kicked by a mule fand introck. Was setting pied and it fell on him. |
| actuming and and and and and and and and and and | g bruised to face to mule. It face to mule. It face to mule. It mules and lightly be with na explode. It fact to make the mule of the mule |
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| Laborer, Miner, Fireman, Fireman, Laborer, Laborer, Laborer, Niner, Niner, Niner, Miner, Laborer, Laborer, Laborer, Laborer, Laborer, Laborer, Laborer, Miner, Miner, Miner, Miner, Miner, Miner, Miner, Miner, Miner, Laborer, Laborer, Laborer, Laborer, Laborer, Laborer, Laborer, Laborer, Miner, Laborer, Laborer, Miner, Laborer, Laborer, Laborer, Laborer, Laborer, Laborer, Laborer, Laborer, Laborer, Miner, M | Miner, Dumpman, Miner, Miner, Miner, Driver, Driver, Miner, Miner, Miner, Miner, Miner, |
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TABLE 5.- Continued

| Nature and Cause of Accident in Brief | Log fractured by fall of coal. Ankle dislocated by fall of coal. Log fractured by fall of slate at face of | breast. Head and leg injured by slate in breast. Leg injured. Caught between car and | loose rail. Back and leg injured by fall of slate at | | nune car and stripping. Outside, Face burned by explosion of gas. Hands and face burned by explosion of | gas. Back and leg injured by fall of coal. Pace and hands burned by explosion of | Fas. Leg injured by fall of slate. Face and hands burned by explosion of | gas. Hands and back burned by explosion of | Fas. Knee brufsed. Dumper fell on him. Out- | Body bruised. Slipped from car and was | Fancy of Fancy of Front Boller room. | Outside Leg injured by rush of water in chute |
|---------------------------------------|---|--|---|----------------|---|--|--|---|---|--|--------------------------------------|--|
| County | | | | | | Schuylkill, | | | | | | |
| Name of Mine | Brookside, Lincoln, St. Clair, | Buck Run, Brookside, | Brookside, | Mt. Hope, | Howard, Buck Run, | Lincoln, Lytle, | Lytle, Lytle, | Howard, | New Castle, | Pine Hill, | Oak Hill. | New Castle, |
| elgnis to beittell. | KK. | N. N. | M | υż | 102 202 | Z vi | ¥vi ≥vi | M. | υż | 102 | v 2 | τά |
| ygr | | 123 | 43 | 22 | S2 12 | 68 88 88 | 24 42 | 27 | 22 | 21 | 20 | 25 |
| noitngussO | Miner, Miner, Laborer, | Miner, Driver, | Miner, | Brakeman, | Miner, | Miner, | Laborer, | Miner, | Laborer, | Driver, | Laborer, | Laborer, |
| Zationality | American, American, Slavonian, | American, | Polish, | Hungarian, | Polish | American, | Lith nanian, | Kussian, | Hengarian, | American, | Polish Laborer, | Polish, Laborer, |
| Name of Person | James T'pdegrave, Howard Houser, Andrew Choleck, | John Peley, Affred Snyder, | Frank Sirreck, | George Ceatch, | George Koroostas, Edward Demps y, | William Heisler, Joseph Comitsky, | Anthony Bartnett, | Matthew Speckas, | Michael Orickko, | Edward Orff, | Stiney Baranofski, | John Yastiska, |
| Date of accident | Scrpt. 28 | 12 | 0.3 | 36 | Nov. 10 | 91 | 222 | 22 | Dec. 1 | 0.3 | 63 | 14 |

FATAL ACCIDENTS

Falls of Coal, Slate and Roof

Good Spring Colliery, March 1, Joseph Gauntlett, miner, was instantly killed. He commenced a pillar heading at the face of breast on the above date, and had driven it about 7 feet on one side. He failed to place any timber to sustain the upper side of the heading, and while going down the breast manway in the evening on his way home a piece of coal fell from the upper side of the heading on him.

St. Clair Colliery, May 2, John Stolka, laborer, was killed by fall of coal. He was engaged filling a car with coal from a pillar which was being removed, when a fall occurred from an unseen slip, pin-

ning him against the car.

St. Clair colliery, September 7, Richard Davis, miner, was instantly killed. He was changing a prop on the side of gangway when the

coal pushed the prop from its position and fell on him.

Lytle colliery, February 18, Daniel Deegan, repairman, Henry B. Moore, loader, Peter Mostofskie, miner, George Cutlash, miner, Sylvester Pedock, miner, were descending slope in gunboat on west side at point opposite No. 2 level, when they were killed by a fall of rock.

The throttle valve of the tender slope hoisting engine being out of order, the officials concluded to lower the men in the gunboat of No. 2 slope. They placed a false bottom in west gunboat which made it convenient for men to get in and out. The east was running empty, timber being lowered in it during the day to No. 3 level.

The East boat was lowered rapidly, there being no person aboard. There were three boat loads of men lowered before the accident

occurred.

The east or empty boat jumped the track disturbing the timber on the slope at No. 2 level, which in turn set the top moving, and it fell about the time west side boat with men in arrived at this place.

St. Clair colliery, October 5, Wociech Skobish, laborer, was killed by piece of rock, triangular shape, falling on him at face of breast.

St. Clair colliery, January 21, Wasil Dunski, miner, was killed by fall of slate. A piece of coal from a blast struck a set of timber near the face of the breast displacing it, Dunski got a hammer to arrange the timber, and struck it one blow when the timber col-

lapsed allowing the slate to fall on him.

Phoenix Park colliery, February 27, George Marshall, miner, was instantly killed. He, his partner and one laborer, were engaged moving pillars on No. 1 plane N. basin. There was a bad piece of slate hanging near the face of skip. The three men tried to pull it down with drills, but failed. Marshall's partner wanted to put a blast in it, but Marshall objected, saying, it was all right. About 12:00 M, the slate fell, killing him.

New Castle colliery, March 14, Albert Master, driver, was killed by fall of top slate while on the gangway watching the loader filling his car. The mine foreman and repairman claimed they examined this piece of slate shortly before the accident occurred. The foreman ordered the repairman to put some props under it. He had sunk a prop hole and went out the gangway to get a prop, and while he was away the piece of slate fell on Master.

Wadesville colliery, March 16, Jerry Brunner, miner was killed by fall of slate while driving East Orchard gangway. At the time of the accident, he was digging coal at the face.

Otto colliery, June 10, Michael Stablum, miner, was killed by fall of slate at the face of gangway he was driving. He was trimming down a loose piece after a blast, when the slate fell on him

Lytle colliery, November 21, Louis Ocublitas, laborer, was killed by fall of slate while filling car at face of gangway. The miner claimed he tried to pull the piece down and failing he notified the laborers not to go under it.

Otto colliery, November 29, John Richards, laborer, was killed by fall of slate while wheeling a barrow in the monkey heading. This piece of slate had two smooth sides running parallel with the heading, one end of it tapering to thin edge. The miner tested the roof a short time prior to the accident and pronounced it good.

Mine Cars

Lytle colliery, March 14, Adam Drusk, laborer, was killed while working with timbermen by night. There were two loaded cars left standing in the gangway, and it was necessary to move them to allow free access for their timber truck. He hitched the mule to one of the cars and started into a tunnel close by, and as the car was entering the tunnel he attempted to jump on it to cross to the other side and while doing so he was caught between the car and the tunnel.

Blackwood tunnel, March 14, Michael Brushkie, driver, was killed while coming out of tunnel with two mules attached to two loaded cars. He stopped the trip about 200 feet from the tunnel mouth to take one of the cars out to the rock bank. When he returned he hitched his team to car in tunnel, whipped the mules, which caused them to move quickly, and in attempting to get on the car he fell under it.

Lincoln colliery, April 10, James Schreffler, driver, was fatally injured while attempting to cross from one bumper of empty cars of trip he was hauling in gangway, he fell to the track, two of the cars passing over him. He died April 14.

Otto colliery, May 25, John Davis, laborer, was killed by being run over by mine car. A loaded car had been left over after the night shift on the gangway, and team driver undertook to move it out of the way. He got it started and jumped on behind. He saw lights on the track and gave the alarm, but Davis failed to get out of the way.

Good Spring colliery, June 20, Daniel Nicewenter, laborer, was killed by being squeezed between two rock dumpers on the end of rock bank. The locomotive pushed two cars against the head block on end of bank and then pulled one back to turnout, a short distance

The switchman placed a sprag in wheel of dumper when they started from end of dump, but it did not hold, he recoupled the engine from the dumper, believing the sprag would remain in the wheel and retain the car in position, as it had often done before. The locomotive and crew left for breaker and had gone but a short distance when car commenced to gravitate to end of bank, catching deceased against car and dump.

Mt. Hope, July 14, George Ryan, driver, was killed by being squeezed between mine car and gangway leg on upper side of gangway. He was driving a mule and pulling out a loaded car when it caught against timber. He unhitched the mule and pulled the car back, hitched the mule to front of car and started off again. When the car arrived at the place where it had caught before, it caught again and killed him. He should have been on the lower side of gangway.

Lincoln colliery, September 28, Charles Fessler, topman, was instantly killed while pulling spreader chain on top of inside slope. The first car of a trip coming up the slope, after crossing the knuckle, jumped the track, and ran across the tracks, pinned Fessler against

the side of the tunnel.

Lincoln colliery, December 18, Charles Lewis, laborer, was run over and killed. He was running two empty gondolas to breaker, and in some unknown manner slipped from the car and fell under the cars.

Explosions of Gas and Dynamite

Phoenix Park colliery, August 25, Albert Fisher, miner, was fatally injured. He had left the colliery and secured work elsewhere. Later he and his partner returned for their tools, and while hunting for them with a naked light ignited gas in a blind heading above

the foot of Tracey's shaft. He died September 7.

Brookside colliery, October 2, John Gamper, miner, was fatally burned while going into the gangway in the morning. Whe he arrived at a point at outside end of turnout, he ignited a small pocket of gas. Died October 7. The fireboss had been in the gangway one hour before the accident and found no gas. There had been no gas found in this gangway since 1900.

Buck Run colliery, November 10, Michael Baylon, miner, was engaged skipping pillar in N. dip Crosby vein, when a fall of coal at or near face of breast forced gas on his naked light burning him and his

partner. Baylon died November 18.

Premature Blasts

Pine Hill colliery, April 27, Anthony Wenskonnis, miner, was killed. No. 80 breast men in West Buck Mountain went into 79 breast to fire a blast in face of heading from No. 79 to connect with heading they were driving from No. 80. They drilled a hole, charged and ignited it, retiring to the monkey, giving the usual signal.

Wenskonnis came through heading in opposite pillar, from No. 78 breast to call No. 79 men to go home and about the time he arrived at the end of heading in breast No. 79, the blast exploded, killing

him.

Oak Hill colliery, May 9, Anthony Sinders, miner, was fatally injured by being struck with coal from a blast. His partner drilled and charged a hole on the inside of breast at face, while he was drilling another hole on the outside rib with his back turned to his partner Thomas Kurtz. Kurtz ignited the blast he had prepared without notifying Sinders, who was but 15 or 16 feet away, and

when the blast exploded some of the coal struck Sinders. He died June 3.

Buck Run colliery, August 30, Stiney Buckloskey, miner, was instantly killed. He ignited two blasts, one in the bottom and the other in the top at the face of gangway. One of the blasts exploded and Buchloskey concluded they both were exploded. He went back to face of gangway and while viewing the place the second blast exploded, killing him.

Howard colliery, October 6, Cornelius Shugartz, miner, ignited a blast at face of breast, and before he could retire to the heading the

blast exploded, killing him.

Falling into Shafts, Slopes, Etc.

Pine Knot shaft, March 22, Frank Bambrick, topman, went from south end to north end of shaft to fix head block and fell into shaft and was killed. The outside foreman had removed a plank that separated the top landing and compartment and failed to replace it.

John Veith No. 2 shaft, November 22, George Washko, laborer, was internally injured. He and others were on scaffold in shaft. The bucket came down loaded with plank lagging 2x8 inches, and landed on the scaffold. They removed the chains and turned the bucket on its side in order to remove the lagging quickly. When it struck the scaffold it gave way, precipitating Washko and others to the bottom of the shaft, a distance of 22 feet.

Blackwood colliery, December 18, Angelo Zerner, miner, was killed. He retreated to his manway after igniting a blast, and was found at the bottom partly covered with loose coal and dead.

Suffocation

Mt. Hope colliery of Mt. Hope Coal Company, January 23, William Possesskie and John Boyock, miners, were smothered by clay. They were engaged driving a gangway across old breasts. The gangway was timbered to the face and forepolled. About noon the face of the gangway commenced to move but they paid little attention to it. About 2 P. M. a rush of clay and mud pushed out from the face of gangway. Boyock made an attempt to run, but tripped and fell, the clay smothering him. Posseskie crouched beside one of the gangway legs and was covered to the chin. Regaining consciousness he directed his rescuers how to proceed to relieve him. While attempting to extricate him, another rush of clay occurred and completely enveloped him. The rescuers barely escaped with their lives.

While stripping the surface in vicinity of this breast some years ago, they filled the breast with clay and sand to an elevation of 15

to 20 feet above the surface.

Oak hill, July 22, Felix Saymon, slate picker, was engaged shoveling buckwheat coal in pocket. He remained too loag in the pocket after loading had commenced and was drawn through the chute and smothered.

Buck Run colliery, October 7, James Ryan, starter, exploded a

blast in breast battery. He remained in the monkey a short time, and the clay rushed through the batter filling the monkey heading

and smothering him.

Blackwood colliery, October 11, Charles Obenhouse, miner, was killed. He commenced to open new breast, and removed the lagging from the monkey heading timber. The vein dipping at a heavy angle, the coal gravitated from the upper side of the monkey, smothering him while he was in the top part of the chute.

Explosion of Boiler, Outside

Wolf Creek washery, January 18, Henry Confair, fireman, was seriously scalded by an explosion of a boiler and died January 20, at Pottsville Hospital.

Explosions of Powder

Buck Run colliery, July 3, Patrick Brophy, miner, was killed while working in breast on the afternoon shift. He was told the place was all right in the morning when he was up at the face. He went up inside manway to bring his powder down from the pillar heading to use it in driving the heading on the outside. He left his safety lamp down in the monkey and went up with naked light. When found at the bottom of the manway the powder keg which he was carrying was close to him and spread open. According to the testimony of the first person at the scene of accident the powder smoke was oozing from the loose coal at foot of manway.

Machinery

Otto colliery, April 29, Claude White, jig receiver, was killed. He took an oil can and said he was going down to the scraper line to oil some wheels. There had been a new cam put on the mud shaker, and it is supposed that on his way back he went to look at it and perhaps oil it. While doing so his clothers were caught by the shaker shaft, and he was drawn into the machinery. No one was supposed to oil the cams while in motion.

Miscellaneous

East Ridge colliery, February 9, Paul Looks, laborer, was killed by culm falling on him. He was engaged loading culm from bank outside. On two occasions it appears he took the pick from the person engaged the culm and undertook the task himself, but he ventured too far beneath the frozen crust, and it fell on him.

Newcastle colliery, December 14, Joseph Wable, miner, was killed, He and his partner were driving a chute in Mud drift gangway to tap water confined in the old gangway above them. They had drilled two holes and encountering rock and water, they commenced another cut, and after firing a blast, the water broke in and drowned Wable.

CONDITION OF COLLIERIES AND IMPROVEMENTS

PHILADELPHIA AND READING COAL AND IRON COMPANY

Brookside Cofliery

East Brookside No. 5 Slope.—A plane has been driven from the 7th to the 5th lift on No. 4 vein; length 228 yards. The shaft mentioned in last year's report is completed at a distance of 1,836 feet. Foundation has been laid for 45x60 inch water shaft engines. A sump tunnel is being driven to connect with bottom of shaft. The length when finished will be 183 1-3 yards; the distance driven is 75 2-3 yards. A tunnel has been driven from the bottom of slope to the bottom of the new shaft. Length of tunnel 364 2-3 yards. A tunnel driven from No. 4 to No. 5 vein at the top of No. 3 plane; length of tunnel 43 yards. Tunnel driven on Tender slope No. 3 lift from No. 4 to No. 5 vein; length of tunnel 30 yards.

West Brookside.—A tunnel has been driven on No. 5 lift E. from

No. 5 to No. 4 vein in the Basin slope.

Lincoln Colliery

No. 2 Slope.—Plane has been driven from the 4th to the 3rd lift on West No. 5 vein; length of plane 330 feet. A tunnel is being driven on the No. 4 lift from No. 4 lift from No. 4 to No. 5 vein. When completed it will approximate 103 1-3 feet. Distance driven 20 1-3 yards. There has been a direct current electric plant installed at this colliery during the year. The power house equipment consists of two 19 by 18 Reeves automatic cut-off, simple engines, directly connected to two 175 K. W., 250 volt, 225 R. P. M. general electric generators. The electric power is controlled by a switchboard, consisting of two generator panels, and one two-circuit feeder panels. The mining equipment consists of four eight-ton general electric mining motors of the Standard type, speeded at 6 miles per hour; two electrical driver hoists, and one 15 H. P. stationery motor, for operating car hoists on head of breaker. Condition of colliery is good.

Good Spring Colliery

No. 1 Slope.—One set of return tubular boilers has been installed. Turnout has been driven 111 1-3 yards long on the 4 foot vein at the bottom of No. 1 slope. Tunnel has been driven on 3rd lift east side from Mammoth vein to the 4 foot vein, a distance of 30 2-3 yards. Tunnel has been driven on the east side of No. 3 lift from the Mammoth to the Bottom bench, a distance of 11 1-3 yards. A new pump room has been made on No. 3 lift 16 2-3 yards long. A tunnel is being driven on the No. 2 lift from the Skidmore vein to the Buck Mountain vein, a distance of 20 yards.

No. 3 Slope.—One set of return tubular boilers has been installed. One 14x20 inch hoisting engine has been erected on the top of new plane outside, to hoist the coal from the Lykens Valley tunnel.

Water level tunnel has been driven, cutting the No. 2 Lykens Valley vein at a distance of 277 1-3 yards. This tunnel is being extended to the No. 4 vein and is driven a distance of 209 2-3 yards.

A tunnel is being driven on the 1st lift East Skidmore vein to the

Buck Mountain vein; length driven 16 2-3 yards.

Air tunnel is being driven in the water level; length driven 13 1-3 yards.

Condition of colliery is good.

Glendower Colliery

A slope on the Buck Mountain vein has been sunk a distance of 1,040 feet and completed.

A tunnel 40 feet has been driven in West Glendower, Daniel vein

slope, from the Daniel to the Skidmore vein.

Condition of colliery is good.

Otto Colliery

Nest slope.—Air tunnel has been driven on the lower lift from the Primrose to the Holmes vein; distance 140 feet. Completed July 3. Air shaft 10x10 feet is being sunk from the surface to the Holmes vein.

Condition of colliery is good.

John Veith Shafts

Shaft No. 1 is now down to a depth of 614 feet; No. 2, 480 feet.

Phoenix Park Colliery

The Tracey shaft mentioned in last year's report was completed April 29, at a distance of 344 feet. A slope is being driven from the bottom of this shaft to the 6th level of Diamond vein. A 21 foot fan, driven by an engine 20x30 direct acting, has been erected at the Tracey air shaft.

Condition of colliery is good.

Rausch Creek Washery

Erected a frame screen house 97 feet x 5 inches x 73 feet x 3 inches x 80 feet x 4 inches. One pair 24x48 inch scraper line engines. Six return tubular boilers. One Jeansville Duplex pump 14 x 18 x 22 inches has been installed. Wood-lined column 14 inches diameter, 666 feet long, has been placed. A scraper line 445 feet long, 32x12 inches; another 188 feet long 36x12 inches, another 320 feet long, 24x12 inches, has been erected.

ST. CLAIR COAL COMPANY

St. Clair Colliery

During the month of March they commenced to operate a stripping on the Mammoth vein in the old Johns colliery workings. They removed about 300,000 cubic yards of material and uncovered part of the vein. In some places it ranges from 50 to 60 feet in thickness, and is in excellent shape. They are mining 100 mine cars of coal

daily. The output will be increased as the stripping is extended. The excavation is being done by contract. The Millard-McGraw Construction Company, Philadelphia, are the contractors. There are two large steam shovels and four locomotives operated day and night.

Condition of colliery is good.

LYTLE COAL COMPANY

Lytle Colliery

A tunnel has been driven from Big Tracey S, dip, to Bid Tracey N, dip, 245 feet. A tunnel has been driven from White Ash 235 feet, with bore hole extending from face 60 feet long. Tapping the water in Kears old Primrose slope No. 5 lift. An air tunnel driven from N, dip Diamond vein to N. Dip Primrose 505 feet. A tunnel driven from Orchard to Primrose N, dip, 210 feet. An air tunnel has been driven from White Ash to Four Foot vein East side 5th level, 50 feet. Air tunnel driven from Orchard to Primrose, 120 feet.

New 18 foot diameter force fan, concrete and iron, blades 7x7x5 feet x 5 inches, has been erected to take the place of Primrose fan, which was destroyed by fire May 19.

Six new spiral separators have been placed in the breaker.

Condition of colliery is good, except drainage in West Primrose No. 4 lift, and West Skidmore vein, Billy plane.

BUCK RUN COAL COMPANY

Buck Run Colliery

There have been erected one fan, 16 feet in diameter, on Daniel vein south dip, and one 14x16 inch engine to drive the fan. One fan has been erected 12 feet diameter, on the Crosby vein North dip, also a 9x18 inch fan engine. Erected one pair of 30x42 inch first motion hoisting engines, to hoist the coal from the Daniel slope, and abandoned the 22x48 inch geared engines. Installed two 320 horse power Babcock and Wilcox tubular boilers, making a total of 1,500 horse power.

No. 1 Buck Mountain tunnel, second level, was driven 226 feet and completed. No. 2 Buck Mountain tunnel, second level, was driven 279 feet and completed.

A slope 12x8 feet, on the Crosby vein South dip No. 2 level was driven to basin, a distance of 151 feet.

The Daniel vein slope 14 feet by 6 inches by 8 feet has been driven a distance of 280 feet No. 2 level, but is not yet completed.

Condition of colliery is good.

OAK HILL COAL COMPANY

Oak Hill Colliery

A tunnel has been driven from the Black Heath to Skidmore vein in the No. 3 level. A tunnel has been driven from West White Ash gangway around east side of shaft, to connect with former tunnel, which was driven to make a water course to run water from Hill workings to the No. 3 level and to avoid back switching the mine cars on their way to slope bottom on the third level. A new 36x

12x36 double acting plunger pump has been placed at foot of No. 2 Primrose slope. Air tunnel is being driven in No. 4 level from a point 140 feet north of shaft southward, around the west side of shaft, to connect with return airway in Black Heath, at the 4th level en the south side of shaft. This tunnel is being driven to carry return air to North Basin. Two narrow breasts have been driven from the third level Skidmore vein through to the water level drift. They intend to tap and remove the water from the old Hill slope workings in the Black Heath vein, through a bore hole from the Skidmore.

Condition of colliery is good, except the drainage in West Skidmore water level drift.

PINE HILL COAL COMPANY Pine Hill Colliery

A tunnel was driven on No. 3 level in the shaft from Buck Mountain vein, cutting the Seven Foot Skidmore and Black Heath veins. Total length driven 309 feet. Tunnel is not completed. Tunnel driven from Seven Foot in No. 2 level towards Skidmore vein is not completed. Total length driven 18 feet; turnouts driven.

Turnout in No. 3 level, West Seven Foot was driven 45 feet; turnout not completed. Turnout in No. 3 level East seven foot, was driven 131 feet; turnout not completed. Turnout in No. 3 level

West Buck Mountain was driven 131 feet drift.

In the drift a slope was driven through the rock and slate, in Buck bottom split in the West Side No. 1 breast, 84 feet. This slope will be driven to the surface. Not yet completed. A 16 foot fan was installed out on the mountain near Lawrence workings, for the drift. This fan runs 86 revolutions per minute and is run by a continuous current 250 horse power and 136 amperes motor. Motor runs 975 revolutions per minute.

The shaft was completed this year and is now down 2 lifts. A new pump from Scranton Steam Pump Company, size 40 by 14 by 36, was installed at the bottom of the shaft. The capacity is 3,000

gallons; the lift is 600 feet. Condition of colliery is good.

Pine Hill breaker, boiler house, office and two dwelling houses burned down August 24, at 2:20 A. M. Cause unknown. A new breaker is being erected on the site of the old one. The breaker will be 121 feet wide and 118 feet deep. The first bent will be concrete up to the height of 29 feet and the last bent will be concrete up to the height of 53 feet. The coal and rock pockets will also be all concrete. The concrete work is re-inforced by the Kahn system of re-inforcement.

A new car shop, machine and blacksmith shop have been erected. A breaker engine house made from concrete blocks is also being erected. Two sets of Sterling Maxim boilers will be erected south of the breaker. A separator will also be built to take the large rock and grind the coal before entering the breaker.

DARKWATER COAL COMPANY Newcastle Colliery

A tunnel has been driven from Skidmore to Buck Mountain vein in Skidmore slope North basin. Two outlets are being driven on the

Buck Mountain vein to surface. A double track slope has been sunk in Skidmore vein Main basin, a distance of 660 feet deep on the south dip. Condition of colliery is fair.

LEHIGH VALLEY COAL COMPANY

Blackwood Colliery

A tunnel 8x12 feet was driven from main tunnel, east, through the foot of the shaft, a distance of 200 feet, and then 200 feet north, and then 200 feet west, back to the main tunnel. This is for handling the loaded and empty cars. The loaded cars run by gravity from main tunnel to foot of shaft, and the empty cars run by gravity from shaft to the foot of the car hoist, about 50 feet. They are then taken by an endless chain up a short plane, 40 feet, and again run by gravity back to the main tunnel.

A tunnel has been started on the West Orchard, about 3,000 feet from main tunnel, to go south from West Orchard to Mammoth vein. It has only been driven about 60 feet. Two 10 ton motors have been put in service in Blackwood tunnel, and 1 in Woods tunnel. All coal will be moved by electric haulage. A 7x10 foot tunnel has been driven from West Orchard North 90 feet to Diamond vein. An air hole has been started on the Diamond vein, but is not quite completed. In Woods tunnel, air holes have been driven on the Primrose and Mammoth veins. Condition of colliery is good.

The breaker mentioned in last year's report is completed, and commenced operations on November 1.

The shaft mentioned in last year's report is completed at a distance of 206 feet.

An air shaft, 12x12 feet, was sunk on the Tracey vein, and a 6x20 foot Guibal ventilating fan was erected. This fan can be used as an exhaust or blow fan. It is proposed to use it as an exhaust fan in warm weather, and a blow fan in cold weather.

A brick engine house, 26x69 feet, was built, and contains the shaft hoisting engines, 26x36 feet, direct motion, Plane engine, 16x30 inches, geared, and a 20x20 inch McEwen engine for driving the electric dynamo.

A new Goyne Compound Duplex pump, 19x32 inches-14x48 inches, was erected, and is used for furnishing the breaker wash water.

A "We-Fu-Go" purifying plant was erected by W. B. Scaife and Company. This is to purify mine water for the boilers. It has a capacity of 6,000 gallons per hour.

E. WHITE AND COMPANY

Howard colliery in good condition.

MT. HOPE COAL COMPANY

Mt. Hope colliery in fair condition.

JOHN H. DAVIS COMPANY

Ellsworth colliery in good condition, except drainage in North dip slope.

Mine Foremen's Examinations

The annual examination for mine foremen and assistant mine foremen was held at the Court House, Pottsville, April 26 and 27. The board was composed of the following members:

Michael J. Brennan, Inspector, Pottsville. John Maguire, Superintendent, Pottsville. Patrick Purcell, Miner, Heckscherville. Jacob Amos, Miner, Branchdale.

The following persons were recommended for certificates:

Mine Foremen

Oliver Machamor, Tower City. Rudolph Schneider, Tower City. Frank Schneider, Tower City. Michael Close, Heckscherville. Tobias Hyer, St. Clair.

Assistant Mine Foremen

John E. Salem, Minersville.
John Crone, Minersville.
Thomas F. Glennon, Minersville.
Henry Smith, Jolliette.
William Jones, Jolliette.
George W. Schrope, Tower City.
Charles Gabie, Duncott.
James Collins, Duncott.
William F. Ney, Llewellyn.
Archie Kelly, Zerbe.



Thirteenth District

SCHUYLKILL COUNTY

Pottsville, Pa., February 26, 1906.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my report as Inspector of Mines of the Thirteenth Anthracite District for the year ending December 31, 1905.

Respectfully submitted,

JOHN CURRAN, Inspector.

SUMMARY OF STATISTICS

| Number of collieries, | 23 |
|--|-----------------|
| Number of mines, | 45 |
| Number of mines in operation, | 44 |
| Number of tons of coal shipped to market, | 2,992,177 |
| Number of tons used at mines for steam and heat, | 384,303 |
| Number of tons sold to local trade and used by employes, | 69,001 |
| Number of tons produced, | 3,445,481 |
| Number of persons employed inside of mines, | 5,828 |
| Number of persons employed outside, | 3,396 |
| Number of fatal accidents inside of mines, | 32 |
| Number of fatal accidents outside, | 8 |
| | |
| Number of non-fatal accidents inside of mines, | 85 |
| Number of non-fatal accidents outside, | 21 |
| Number of tons of coal produced per fatal accident inside, | 107,671 |
| Number of persons employed per fatal accident inside, | 182 |
| Number of persons employed per fatal accident outside, | 424 |
| Number of persons employed per non-fatal accident inside, | 69 |
| Number of persons employed per non-fatal accident out- | |
| side, | 161 |
| Number of wives made widows, | 23 |
| Number of children orphaned, | 65 |
| Number of steam locomotives used inside of mines, | 8 |
| Number of steam locomotives used outside, | $3\overline{2}$ |
| Number of compressed air locomotives used inside, | 4 |
| Number of fans in use, | 25 |
| | |
| Number of gaseous mines in operation, | 26 |
| Number of non-gaseous mines in operation, | 18 |
| Number of new mines opened, | 1 |
| Number of old mines abandoned, | 1 |
| | |

TABLE A

PRODUCTION OF COAL

| Names of Operators | Tons |
|---|-----------|
| Lehigh Coal and Navigation Company, | 1,069,128 |
| Philadelphia and Reading Coal and Iron Company, | 518,002 |
| Mill Creek Coal Company, | 511,013 |
| Lehigh and Wilkes-Barre Coal Company, | 503,807 |
| Coxe Brothers and Company, Incorporated, | 306,957 |
| Truman M. Dodson Coal Company, | 118,052 |
| Dodson Coal Company, | 114,631 |
| Beddall Brothers, | 90,635 |
| Maryd Coal Company, | 64,613 |
| Gorman and Campion, | 38,533 |
| Butcher Creek Coal Company, | 34,590 |
| East Lehigh Coal Company, | 23,034 |
| Phillips Brothers, | 15,601 |
| William Cook, | 12,275 |
| Joseph H. Dennings, | 6,098 |
| Neil Breslin and Sons, | 2,031 |
| Dunkleberger and Young, | 1,480 |
| William H. Greenfield, Jr., and Company, | 15,001 |
| Total, | 3,445,481 |
| | |
| Production by Counties | |
| Schuylkill, | 3,445,481 |

TABLE B.-Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number accident

| | Number of employes out | 86 94 4 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | 161 |
|---------------------|---|---|-----------------------------------|
| əbis | Mumber of employer in | \$4 NS 84 84 85 8 8 14 15 15 15 15 15 15 15 15 15 15 15 15 15 | 69 |
| əbis | Zumber of employes outs | 160 | 424 |
| əbis | Mumber of employes in | 응용가용과 발모품인 및 | 17.3 |
| s | Total number of employe | 24 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 9,554 |
| epis | Number of employes out | . RG왕은품으립은물왕전동공원보드왕등 | 3,096 |
| 91 | Number of employes insid | # 1 | 8.8.6 |
| 19d 9. | peouthord less to smoT bismi institution less than the | 11.4.3.2.5.1.1.2.1.2.2.2.2.2.2.2.2.2.2.2.2.2.2 | 10, "35 |
| per | besubord lans to anoT oblishi trebiose latal | 213. 826 17.7 936 11.7 936 11.1 11. 11. 11. 11. 11. 11. 11. 11. 11 | 1-7,671 |
| cidents | Isto7 | 48444 6845110000044 | 106 |
| Non-Fatal Accidents | Outside | H 44 1010 00 00 | 21 |
| Non-F | - əbismI | 12 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 85 |
| ents | TefeT | 001-1-000 HHH | 40 |
| Fatal Accidents | ebistn() | 67 69 11 11 | oc. |
| Fate | əpisul | 101-1-010 REPO | 83 |
| | Names of Operators | Debigh Coal and Navigation (co., 1970). Philadeliphia and Resoluis Coal and Iron Co., Mill Proceed Coal. Lexist head was large and Co., Incorporated, Territoria M. Position Coal Co., Beddall Beathers and Co., Incorporated, Coal Co., Beddall Beathers Campion, Gentanan and Campion, Gentanan and Campion, Gentanan and Campion, Coal Co., Comman Coal Co., Comman Coal Co., Commings Seeded H. Dennings, Organic Coal Co., Coal Coal Coal Coal Coal Coal Coal Coal | Totals and averages for district, |

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

| | | | | | | | М | onth | s | | | | | |
|---|---------|----------|-------|--------|-----|------------|------|--------|----------------|---------|----------|-----------------|-------------------------------------|--|
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Falls of coal, Falls of slate, Falls of roof, Mine cars, Explosions of gas and dust, Suffocation by gas, etc. Explosions of powder and dynamite, Premature blasts, Falling into shalts, Falling into slopes, etc., By mules, Miscellaneous, Totals, | 1 | | 1 | 1 1 | | 1 1 | | 1 | 1 1 | 1 | 1 | 1 1 1 | \$ 9 1 2 2 1 1 2 2 1 1 2 2 1 3 2 == | 25.00 28.12 3.12 6.25 6.25 3.13 3.13 6.25 6.25 3.10 6.25 |
| Causes of Accidents Outside Cars, Machinery, Miscellaneous, | | | 1 | | | | | 1 | 1 | | | | 4 2 2 | 50.00 25.00 25.00 |
| Totals, | 3 | 2 3 | 1 3 | 6 | 1 8 | 3 | | 1 2 | 1 3 | 3 | | 3 | 8 40 | 100 |

TABLE D.-Classification of Non-fatal Accidents Inside and Outside of Mines

| | | | | | | | - | | | | | | | |
|---|---------|----------|-----------------------|---------|-----------|---|------------------------|-------------|--------------------------|----------------|----------|--------------------------------------|---|---|
| | I | | | | | | M | onth | ıs | | | | _ | |
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | Leceniber | T tals | Percentages |
| Falls of coal, Falls of slate, Falls of roof, Mine cars, Explosions of gas and dust, Explosions of powder and dynamite, Premature blasts, Falling into shafts, Falling into slopes, etc. By mules, Miscellaneous, Totals, | 3 1 | 1 2 2 | 2 1 2 1 1 | 1 1 1 4 | 1 1 8 1 + | 3 | 3 1 -5 == | 1 2 2 | 2 1 2 6 | 3 1 | 2 1 6 - | 2 2 1 1 -6 .= | 11 4 2 13 24 3 12 1 5 | 12.94 4.71 2.35 15.29 28.23 3.53 11.12 1.18 5.88 1.18 10.59 |
| Causes of Accidents Outside Cars. Machinery, Dedier explosions, Miscellan outs, Totals, Grand totals inside and outside, | | | | | 1 5 7 21 | 1 | 1 1 6 | 1 7 | 1 2 9 | | 1 7 | 1 7 | 1 1 12 21 - | 19.05 19.47 4.76 57.14 |

 $\begin{array}{c} {\rm TABLE~E.-Occupations~of~Persons~Killed~or~Fatally~Injured~Inside~and~Outside} \\ {\rm of~Mines} \end{array}$

| | | | | | | JM. | [ont] | h s | | | | | |
|--|---------|----------|----------------|-------|------------|------|-------|--------|-----------|---------|----------|----------|------------------------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Inside Miners, Miners' laborers, Drivers and runners, Punapmen, Company men, All other employes, | 1 | 1 | 2 | 4 2 | 6 1 | 2 | 2 | i | 1 1 | 2 | 1 | 2 | 22 6 1 1 1 |
| Totals, | 3 | 1 | 2 | 6== | 7 | 2 | | 1== | 2 | 2 | 1 | 3== | 32 |
| Outside All other employes, Totals, Grand totals inside and outside, | | 2 2 3 | $-\frac{1}{1}$ | ···· | 1 1 | 1 3 | | 1 2 | 1 1 3 | 1 1 3 | | 3 | 8 - 8 - 40 |

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

| | | | | | | M | onth | E | | | | | |
|---|---------|----------|-----------------|-------------|-------|-------|---------|--------|-----------|---------|----------|----------|-------------------------------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Inside Fire hosses and assistants, Miners, Miners laborers, Dirivers and runners, Pumpmen, Company men, | 1 | 8 1 1 | 1 2 1 | 2 1 1 | | 6 | 1 1 2 1 | 4 1 1 | 4 2 | 3 | 1 3 | 3 | 1 49 17 11 1 6 |
| Totals, Outside Engineers and firemen. Slatepickers (heys), All other employes, Totals. | 5 | 3 | | 1 | 3 3 1 | 1 3 4 | 1 | 1 | 2 | 9 | 1 1 | 1 | 21 |

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | | |
|---|------------|----------|-------|---------------------------|----------------------------|------|------|--------|-----------|---------|----------|----------|--------|--|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals | |
| American, Welsh, Irish, German, Pollsh, Hungarian, Italian, Slavonian, Lithuanian, Austrian, Russian, | 2 1 | 2 | 1 1 1 | 1 2 1 1 1 | 2 1 1 2 2 2 | 3 | 1 | 1 | 1 1 | 1 | i | 1 1 1 | 12 | |
| Totals, | 3 | 3 | 3 | 6 | 8 | 3 | 2 | 2 | 3 | 3 | 1 | 3 | 40 | |

TABLE H.-Nationality of Persons Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|---|---------|-----------|-------|---------|------------------------------------|-----------|------|--------|-----------------|---------|----------|----------|--------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| American, Welsh, Irlsh, German, Polish, Hungarian, Italian, Slavonian, Lithuanian, Russian, Tyrolean, | 2 | 1 3 1 1 2 | 5 1 | 1 2 1 1 | 9 1 2 6 1 1 | 2 3 1 1 3 | 4 2 | 3 1 | 3 1 1 | 6 | 2 3 1 | 3 | 3 |
| Totals, | 5 | 13 | 8 | 5 | 21 | 10 | 6 | 7 | 8 | 9 | 7 | 7 | 10 |

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each person rer minute

| ווווווחווו | Names of Operators and Mines | Lebigh Coal and Navigation Co. No. N. No. N. | ::: | oa1 | Eagle Hill, | | Middle Lehigh No. 6, | Lehigh and Wilkes-Barre CoalCo. Honey Brook No. 5, | |
|------------|--|--|----------------------------------|----------|-------------|--|----------------------|---|----------------------------------|
| | Kind of opening | Shaft, Sl.pe, Shaft, | Shaft, | Shaft, | Slope, | Slope, | Slope, | Slope, | Slope, |
| | snoosex-uou to snooset) | Gase us, Gase us, Gaseous, | Gasecus, Gasecus, Gasecus, | Gaserus, | Gaseous, | Gase us, Gase us, Gase us, Gase us, | Non-gas. | Gas. ous. | Non-gas. Non gus. Gaseous, |
| | mothelituev to bodieM | Fan, Fan, | Fan, Fan, | Fan | Fan, | Fan. Fan, Fan, | | Fan, | Fan, Fan, |
| | tool ni nsi to referration | 22 12 | : | - 12 | 21 (| 118 | - | 15 | 10.10 |
| | fool ni sobald to athiw | 8 9 | : | | 6.10 | 4 4 0 | : | | 4.4. rc rc |
| | 1991 in selbsid to diget | 7 5.6 | 5.6 | 7 | 9 | 4 4 9 8 - | | 3.1 | |
| | Zumber of revolutions per ninute | 70 1. | 1001 | 119 | 75 1 | \$0 \$0 65 | : | 02 | (5) |
| | sətləri | 6:2 | 1.3 | | 1.5 | : 10 | : | | S:- |
| | nsi lo sinsV | Guibal, | | Juibal, | Guilbal, | Guibal, Guibal, | | Guibal | Guibal. Guibal. |
| | Power used | Steam | | Steam | Steam | Steam, | | Steam, | |
| | Number of splits of air cur- | | | | -4 | - 10 - : : : : | - | : | 00.00 |
| | Number of cubic feet of air per minute entering the film at inlet | 84,477 | 63,000 | 69,710 | 26,600 | 70,558 | | 58,550 | 39, 265 |
| | Total quantity of air per fin minute circulating in all the splits in cubic feet | 65,539 | 40,060 30,000 | 70,052 | 57,300 | 74,457 | | 59, 201 | 39, 665 |
| | Number of cubic feet per minute passing out at outlet | 90,150 | 62,000) 60,000) | 70,455 | 58,000 | 78,317 | | 60,035 | 59,040 |
| . | Number of persons employed inside | 225 | 239 | 163 | 2006 | 254 | 76 | 156 | 125 |
| - | Average mumber of cubic feet for minute provided for a feet | 295 | 157 | 430 | 623 | 293 | : | 380 | 377 |

*Fan not in operation, opening old work.

| 332 | 461 898 458 | 539 | 403 | 242 | 797 | : | | 353 | | : | | | |
|-------------------------------------|--|---|----------------------------------|--|--|--------------------|------------------------|----------------------|-----------------------------------|---|-----------------------------------|-----------------------|--|
| 281 | 115 32 147 | 162 | 108 | 95 | -13 | 20 | 읩 | 46 | 25 | ======================================= | 15 | 4 | 20 |
| 96,200 | 49,525 | 88,000 | 45, 500 | 25,000 | 63,000 | : | | 15, 225 | | : | | | |
| | | - | | : | | - : | - : | | | : | : | : | |
| 93,275 31,000 | 53,115 28,750 71,750 | 87,470 | 43,560 | 23,000 | 63,000 | | | 16, 237 | | | | | |
| 30, 600 | 28, 705 | 86,940 | 41,170 | 21,000 | 63,000 | : | : | ,250 | | : | - : | | |
| 8 g | 92 83 83 83 83 | 98 | • 14 | มี : | | | | 17, | | | | | <u>.</u> |
| 은 : | o :01- | ه سبب | | eo : | eo : : | : | : | 23 | | : | | | |
| Steam, Steam, | Steam, Steam, Steam, | Steam, | Steam, | | Steam, | | | Steam, | | | | | |
| | | : | : | | | : | | : | | : | | : | |
| Guibal, Guibal, | Pelzer, Guibal, Guibal, | Guibal, | Guibal, | | Guibal, | | | Guibal, | | | | : | |
| egn Can | | 5 | . ~ 5 | - : : | | _ ; | | Gu | : | : | : | : | <u>:</u> |
| rö rö | 1.75 | 1.1 | 1 6.5 | | 1.75 | | | rō | | | | | |
| 80 | 150 | 65 65 65 65 | 2222 | | 72 | | | 75 | | | | | |
| \$ 55 A | 5.10 | 5.10 | 999 | | 10 | | | 3.6 | : | | : | | |
| 4 60 | 70 .03 20 .03 | 4 9 | 6.10 6.10 6.10 | | * | | : | 4 | | | | | : |
| 16 | 12.6 | 16 | 18 | | 16 | | | 12 | | | : | : | |
| Fan, | Fan, Fan. | Fan, Fan, | Fan, Fan, | Natural,† Natural, | Fan, Natural, Natural, | Natural, | Natural, | Fan, | Natural, | Natural, | Natural, | Natural, | Natural, |
| Gaseous, Caseous, | Gaseous, Gaseous, Non-gas, Non-gas, | Gaseous, Gase us, Gaseous, | Gareous, Gaseous, | Gaseous, Non-gas. | Gastows, Non-gas. Non-gas. | Non-gas. | Non-gas. | Gaseous, | Non-gas. | Non-gas. | Non-gas. | Non-gas. | Non-gas. |
| | | ::: | - : : - | | | : | : | : | : | : | : | : | : |
| Slope, | Shafft, Slope, Shaft, Shaft, | Shaft, Shaft, | Shaft, | Slope, | Slop., Drift, | Drifft, | Slope, | Drift, | Drift, | Slope, | Slope, | Drift | Drift, |
| Audenried No. 11. Audenried No. 16, | Coxe Diffusiva et al. (1907- Oneida No. 1. Oneida No. 4. Oneida No. 4. Oneida No. 6. | Truman M. Dodson Coal Co. Kaska William, Kaska William, Kaska William, | Morea, Dodson Coal Co. Morea, | Beddall Brothers Greenwood, Greenwood, | Maryd Coal Co. Maryd No. 1, Maryd No. 1, Maryd No. 2, | Gorman and Campion | Butcher Creek Coal Co. | East Lehigh Coal Co. | Phillips Brothers Silver Hill, | Oakley, William Cook | Joseph H. Dennings Sebastopol, | Neil Breslin and Sons | Dunkleherger and Young West Lehigh, |

*Ventilated by fan at No. 10 colliery, Lehigh Coal and Navigation Co.

TABLE 1 .- Operators, location of collieries, railroads, etc.

| Railroad to Mine | C. R. R. of N. J. | P. and R. | Lehigh Valley | C. R. R. of N. J. | D. S. and S. | P. and R. and C. R. R. | Lehigh Valley | C. R. R. of N. J. | C. R. R. of N. J. and | P. and R. |
|-----------------------------------|--|--|---|---|---|---|-----------------|--------------------------------|-----------------------|-----------------------------------|
| Post Office | Lansford, C. | Pottsville, | New Boston, Lehigh Valley | Audenried, | Drifton, D. | Kaska, | Morea, | Tamaqua, | Maryd, | J. Slattery, Tuscarora, P. and R. |
| Name of Superin- | Baird Snyder, Jr., Lansford, | Reese Tasker, | J. E. Jones, | E. J. Newbaker, | William H. Davis, | Thomas H. Wil- | ъ. | M. A. Gerber, | George M. Wilmot, | D. |
| Post Office. | Lansford, | Pottsville, | New Boston, | Wilkes-Barre, | Wilkes-Barre, | Audenried, | Audenried, | Tamaqua, | Philadelphia, | |
| Name of General Superintendent | Wm. D. Zehner, Lansford, | Wm. J. Richards, . | T. D. Jones, | C. F. Huber, | S. D. Warriner, | E. L. Bullock, | E. L. Bullock, | M. A. Gerber, | J. L. Wentze, | |
| County | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, |
| Names of Operators and Collieries | Lehigh Coal and Navigation Co. Colliery No. 8, Colliery No. 10, Colliery No. 11, Colliery No. 12, Colliery No. 12, Colliery No. 14, Colliery No. 15, Colliery No. 16, Colliery N | Philadelphia and Reading Coal and Iron Co. Silver Creek, Eagle Hill, Eagle Hill No. 2, | Mill Creek Coal Co. Buck Mountain, Vulcan, Widdle Lehigh, | Lehigh and Wilkes-Barre Coal Co., Honey Brook No. 5, Audenried No. 4, | Coxe Brothers and Co., Inc. Oneida No. 1. Oneida No. 2, Oneida No. 3. | Truman M. Dodson Coal Co. Kaska William, | Dodson Coal Co. | Beddall Brothers Greenwood, | Maryd, Maryd Coal Co. | Bell, Gorman and Campion |

| id R. | d R. | d R. | d R. | d R. | d R. | d R. | | d R. |
|---|---|-----------------------|---------------------------|-------------------------------------|--|--|--------------------------------|--------------------------------|
| P. an | P. an | P. an | P. and R. | P. an | P. an | P. an | | P. an |
| | : | : | : | : | : | : | | : |
| St. Clair, | Tamaqua, | Middleport, P. and R. | Tuscarora, | St. Clair, | Middleport | Tamaqua, | | Tamaqua, |
| St. Clair, James J. Whims, . St. Clair, P. and R. | Tamaqua, James Tinley, Tamaqua, P. and R. | Thomas C. Reese, | Cook, | Joseph H. Den- St. Clair, P. and R. | nings Patrick Breslin, Middleport, P. and | C, Dunk- | | John, |
| James J. | James Ti | Thomas (| William | Joseph | nings Patrick E | William | leberger | Fred H. |
| | | Middleport, | | | , | | | |
| St. Clair | Tamaqua, | Middlepor | | | Middleport, | Tamaqua, | | |
| Whims, . | | Reese, | | | Breslin, | Young,. | | |
| James J. | James Tinley, | Thomas C. Reese, | | | Cornelius | George H. | | |
| Schuylkill, James J. Whims, . | Schuylkill, | Schuylkill, | Schuylkill, William Cook, | Schuylkill, | Schuylkill, Cornelius Breslin, | Schuylkill, George H. Young., Tamaqua, William C. Dunk- Tamaqua, P. and R. | , | Schuylkill, Tamaqua, P. and R. |
| | East Lehigh Coal Co. | Bilver Hill, | Oakley, William Cook | Sebastopol, | Coal Hill, | Dunkleberger and Young West Lehigh, | William H. Greenfield, Jr. and | Pine Dale washery, |

TABLE 2.-Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder and dynamite used, etc.

| REPORT OF THE DEI | PARTMEN | T OF M | AINE | is | Off. |
|--|--|---|---------------------------|--|---------|
| Number of horses and mules | 121 91 72 72 35 | 89 | 143 | 32 37 15 | 84 |
| Number of pounds of dynamite | 104,000 115,275 73,450 91,100 7,625 | 2,091 36,167 | 15,544 | 12,850 10,335 4,350 | 28, 035 |
| Number of kegs of powder used | 150 860 830 | 5,260 | 7.202 | 7,759 8,057 50 | 15,866 |
| Number of non-fatal accidents | 13 13 13 13 13 13 13 13 13 13 13 13 13 1 | 15 16 | 20 | 485 | 19 |
| Number of fatal accidents | 01 स्थलन | s 0 | [- | . . . | 7 |
| Number of employes | 587 573 347 112 | 1,036 | 1,782 | 420 437 109 | 996 |
| Number of days worked (Totals are averages, not including washerles) | 2280 2280 * 1284 * 1284 | 274 274 | 184 | 245 270 | 165 |
| Total production of coal in tons | 355.255 319.0.6 277.722 117,654 | 1, 069, 128 ==================================== | 518,002 | 271, 778 23 -, 23 : | 511,013 |
| Number of tons sold to local trade and used by employees | 9,456 | 3,990 | 6,361 | | |
| Number of tons used at collieries | | 30,834 33,052 | 63,886 | 25, 947 20, 440 | 46,087 |
| beqqins Isoo lo snol lo maher of | | ====================================== | 417,755 | 245, 831 218, 795 | 464,626 |
| County | Schuylkill, | | Schuylk: II, | Schuylk:11, | |
| Names of Operators and Collieries | No. 8. No. 10. No. 10. No. 10. No. 11. | Totals, P. and R. Coal and Iron Co. | Farte HIII No. 2. Total's | Buck Meuntain, Mill Creek Coal Co. Mollem. Mollem. | Totals, |

*No time given.

| 48 | 117 | 87 | 36 | 19 | 20 | 26 | 11 | 9 | 12 | 10 | 4 | 10 | 4 | 00 | 1 | 964 |
|---|---------|--|--|-------------------------|-------------|-----------------------|-------------|-------------|--------------|--------------|----------------------|--------------------------------|---------------|--------------|------------------------------------|---------------|
| 193,119 | 201,197 | 27,525 | 28,300 | 29,270 | 15,750 | 14, 239 | 7,530 | 2,100 | 6,125 | 1,980 | 77.5 | \$25 | 500 | 1,000 | | 810,353 |
| 7,063 | 7,609 | 4,158 | 2,650 | 5,475 | 133 | 1,171 | 525 | | 210 | (9) | 270 | | 06 | o. | | 47,467 |
| 1-63 | 19 | 10 | 13 | 9 | 60 | - | | | | | | | | | | 106 |
| 4.01 | 9 | 10 | | - | - | - | e2 | | | | : | : | : | - | | 40 |
| 199 | 1,606 | 528 | 480 | 91.5 | 205 | 400 | . 68 | | 84 | 43 | 3 | 32 | 101 | 52 | 21 | 9,224 |
| 20 20 | 170 | 223 | 803 | 191 | 274 | 191 | 252 | 251 | 210 | 139 | 267 | 279 | 241 | 38 | 214 | 203 |
| 451,364 | 503,807 | 306,957 | 118,052 | 114,631 | 50.65 | 64,613 | 38,533 | 24,590 | 23, (134 | 15,661 | 12,275 | 86,198 | 2,031 | 1,480 | 15,(01 | 3,447,481 |
| 2,643 | 3,406 | 4.231 | 532 | 636 | 15,641 | 629 | 1 | 88 | 4.043 | 196 | 1,026 | 3.879 | 225 | 296 | 30 | 69,001 |
| 24, 220 28, 077 | 52,297 | 58.987 | 27,375 | 27,500 | 5,500 | 10,835 | 1,300 | 2,600 | 009 | 1,200 | 550 | 009 | 185 | 65 | 321 | 384, 303 |
| 24, 501 | 448,504 | 243,749 | 90,145 | 86,162 | 69, 454 | 53,119 | 37, 226 | 31,901 | 18,391 | 14,205 | 10,669 | 1,619 | 1,621 | 1,119 | 14,650 | 2,992,177 |
| :: | : | : | | ':' | -: ' | : | : | : | : | : | -: | : | : | : | -: | : |
| Schuylkill, Schuylkill, | | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill. | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | |
| Lehigh and Wilkes-Barre Coal Co Honey Brook No. 5. Audenried No. 4. | Totals, | Coxe Brothers and Co., Incorporated Oneida Nos. 1, 2, 3, | Truman M. Dodson Coal Co. Kaska William, | Morea, Toolson Coal Co. | Greenwood, | Maryd, Maryd Coal Co. | Bell, | Laurel Run, | East Lehigh, | Silver Hill, | Oakley. William Cook | Sebastopol, Joseph H. Dennings | Coal Hill, | West Lehigh, | William H. Greenfield, Jr. and Co. | Grand totals, |

+Miscellaneous.

| REFORT OF THE | DEFARIA | 1121 |
|---|---|-----------|
| Number of horses and mules | \$29 143 84 117 291 | <u> </u> |
| Number of pounds of dynamite | 391, 970 53, 802 28, 035 261, 197 135, 369 | 810, 353 |
| Namber of kegs of powder used | 2,040 7,262 15,866 7,609 14,750 | 47,467 |
| Number of non-fatal accidents | 16 20 19 19 32 | 106 |
| Number of fatal accidents | 126 77 | 40 |
| Number of employes | | 9, 224 |
| Number of days worked (Totals are averages, not including washeries) | 282 275 247 170 194 | 203 |
| Total production of coal in tons | 1,069,128 518,002 511,013 502,807 843,531 | 3,445,481 |
| Number of tons sold to local second to local trade and been bus observed. | | 100,69 |
| Number of tons used at collieries | 84, 115 63, 886 46, 387 52, 297 137, 618 | 384,303 |
| Number of tons of coal shipped to market | 957, 232 447, 755 464, 626 448, 504 674, 069 | 2,992,177 |
| County | Schuylkill, | |
| Names of Operators | Lehigh Coal and Navigation Co., Philadelphia and Reading Coal and Iron Co., Mill Creek Coal Co., Lehigh and Wilkes-Barre Coal Co., Miscellaneous companies, | Totals, |

TABLE 2.—PART 2.

| | | ANTIMACITE DISTRICT |
|-------------------|--|---|
| | Number of air compressors | ⊘ ⊘ ⊘ |
| | Number of electric dynamos | |
| Teq | Quantity delivered to surface minute-gallons | 4 600 1,350 3 500 2,400 500 100 100 100 100 100 100 100 100 1 |
| 931 | Capacity in gallons per minu | 10, 200 2, 700 2, 700 16, 811 1, 50) 1, 50) 1, 50) 1, 50) 1, 50 1, |
| Suj. | Number of pumps deliver water to surface | 24 HH∞010 0 010140010 € |
| | Total horse power | 50 50 50 50 50 50 50 50 50 50 50 50 50 5 |
| IIB ' | Number of steam engines of | 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| ives | Electric | |
| Locomotives | | 80 4 |
| <u>Ч</u> | Steam | 24 12 00 4 12 00 01 14 00 0 |
| | Total horse power | 10.453 3,350 3,350 2,585 4,890 1,650 1,650 1,650 1,170 2,240 3,00 1,00 1,00 1,00 1,00 1,00 1,00 1,0 |
| Boilers | Horse power | 9,883 1,500 1,050 1, |
| Number of Boilers | Tubular | 84848 |
| Numl | Horse power | 2.960 600 1.350 1.350 2.240 2.240 3.0 1.8 3.0 1.8 6.588 |
| | Cylindrical | 252 252 242 243 252 243 243 244 244 244 244 244 244 244 24 |
| | County | Schuylkill, |
| | Names of Operators | Lehigh Coal and Navigation Co., Philadelphia and Reading Coal and Iron Mil Creek Coal Co., Lehigh and Wilkes-Barre Coal Co., Coxe Brothers and Co., Incorporated, Truman M. Hodson Coal (o., Beddail Brothers, Gorman and Campion, Butter Creek Coal Co., Phillips Brothers, William Cook, Joseph H. Dennings, Joseph H. Dennings, Joseph H. Dennings, Joseph H. Gornings, Joseph H. Cornings, Joseph H. Gornings, Joseph H. Greenfield, Jr. and Co., William H. Greenfield, Jr. and Co., |

TABLE 3.--Number of each class of employes inside and outside of mines

| | Grand total Inside and outside | 5877 575 347 112 | 2,344 | 1,036 679 67 | 1,782 | 420 437 109 | 996 |
|---------|----------------------------------|---|---------|--|---------|---|---------|
| | Total outside | 181 261 209 108 | 780 | 349 234 17 | 009 | 161 129 52 | 342 |
| | All other employes | 108 118 23 23 12 | 361 | 173 115 | 297 | 229 | 96 |
| | Вооккесрега and clerks | | -7" | 400 | 1- | 0.000 | 9 |
| Outside | Slatepickers (men) | 38 61 49 15 | 163 | 843 | 65 | 31 | 23 |
| Out | Slatepickers (boys) | 453 463 463 | 121 | 88.45 | 147 | 32 | 89 |
| | Engineers and firemen | 88811 | 92 | 22 22 6 | 18 | 222 | 639 |
| | Blacksmiths and carpenters | 00 00 00 to 60 | 35 | 1 2 1 1 | 54 | 000- | 21 |
| | п-отетеп | | 4 | 6364 | 10 | === | 00 |
| | Superintendents | | | !!! | | - | |
| | Total Inside | 406 462 366 239 91 | 1,564 | 687 445 50 | 1,182 | 259 308 57 | 624 |
| | All other employes | 119 162 137 62 | 480 | 172 | 248 | 138 | 99 |
| | Сотралу теп | 88880 | 298 | 49 | 116 | 16 21 4 | 41 |
| | Pumpmen | 60 4 4 H | 18 | 44 | 4 | 01014 | 00 |
| Inside | Door poys and helpers | 16 21 14 22 22 | 55 | 44 | 00 | 61 | 10 |
| Ins | Drivers and runners | 83 4 63 H | 121 | 40 | 59 | 2000 | 45 |
| | Miners' laborers | 422 222 | 253 | 151 113 48 | 312 | 73 | 138 |
| | s19niM | 96 107 54 66 | 327 | 260 155 | 417 | 122 | 365 |
| | Fire bosses and assistants | (0010101 | 12 | 5.9 : | 12 | 910: | = |
| | Assistant mine foremen | 201214 | t | -:: | - | | 00 |
| | Mine foremen | | 0. | | 0.1 | | 00 |
| | County | Schuylkill, | | Schuylkill, | | Schuylkili, | |
| | Names of Operators and Colleries | Lehigh Coal and Navigation Co. S. No. 10. 10. 10. No. 11. No. 12. No. 12. No. 12. No. 12. No. 12. No. 12. No. 14. No. 14. No. 15. No. 14. No. 15. No. 14. No. 15. No. | Totals, | Philadelphia and Reading Coal and Iron Co. Silver Crock, Eagle Hill. | Totals, | Mill Creek Coal Co. Buck Mountain, Vulcan, Middle Lehigh, | Totals, |

| | 765 | 1,606 | 228 | 528 | 480 | 476 | 205 | 400 | 82 | 96 | 88 | 43 | 83 | 32 | 10 | 52 |
|-------------------------|--|---------|--|---------|---|-----------------|-----------------------------|-----------------------|---------------------|------------------------|----------------------|-----------------------------------|--------------|-----------------------------------|-------------------------------------|--|
| | 228 203 *77 | 508 | 234 | 234 | 180 | 222 | 110 | 169 | 32 | 78 | 35 | 18 | 12 | 17 | 9 | 32 |
| | 201 101 101 101 101 | 256 | 121 | 121 | 86 | 101 | 58 | 66 | 18 | 99 | 20 | 9 | 4 | 6 | 1 | 16 |
| - | 2171 | 4 | .00 | 8 | 2 | 2 | " | (c) | 2 | | 1 | | | | - | 1 |
| | 24 | 2 | 26 | 26 | 18 | 25 | 4 | 67 | | | | - | | 1 :1 | | |
| | 28 | 144 | ======================================= | 21 | 24 | 40 | 32 | 29 | 7 | 4 | 4 | 60 | 4 | 4 | 1-1 | t- |
| | 957 | 51 | 45 | 45 | 26 | 24 | 00 | 19 | 2 | 10 | 2 | 00 | 2 | 60 | - | 4 |
| | 28: 4 | 35 | 12: | 17 | 18 | 101 | rc. | 15 | 63 | 60 | 63 | 61 | - | | - | 2 |
| | HH4 | 9 | - | - | + | 4 | " | - | - | 4 | - | - | - | | : | - |
| | : :00 | 00 | | | - | - | | H | | = | = | | | | - | - |
| | 587 | 1,098 | 112 27 155 | 294 | 300 | 254 | 92 | 231 | 50 | 12 | 49 | 25 | 11 | 15 | 4 | 20 |
| | 166 | 250 | 20 m 20 m | 09 | 69 | 52 | 00 | | | | | | | | | |
| | @P2 : | 152 | 844 | 2 | t- | 16 | 25 | 182 | L- | | 2 | 00 | | | | |
| | H 7 | 1.0 | 00 | so l | 9 | 4 | | 63 | | | | | | | | |
| | 12 | 27 | 840 | 14 | 2 | 10 | 2 | - | 5 | | - | | : | | | |
| | 20 | SSS | 12.21 | 31 | 18 | 21 | 13 | 00 | 9 | | 00 | c) | 61 | | - | 9 |
| | E E E | 55 | 1221 | 14 | 40 | 27 | 16 | 53 | 9 | 2 | 10 | ro | 2 | 7 | 63 | 2 |
| | 24 : | 599 | 8253 | 156 | 150 | 35 | 83 | 1.28 | 28 | 4 | 21 | 17 | 9 | ro | | 4 |
| | H '9 : | 4 | 7:: | н | 4 | 20 | - | - | : | | | | . : | : | : | |
| | ?1 : : | 0.1 | | 2 | | | | | : | : | - | : | | | | : : |
| | | 00 | | 20 | + | - | H | - | | - | - | - | | | | |
| | | : | | : | : | : | : | : | : | : | : | : | : | : | : | : |
| | Schuylkill, | | Schuylkill, | | Schuylkill, | Schuylkill, | Schuylkill, | Sehuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, | Schuylkill, |
| Lehigh and Wilkes-Barre | Honey Brook No. 5, Audenried No. 4, | Totals, | Coxe Brothers and Co., Incurporated Coneida No. 2, Oneida No. 2, Oneida No. 3, | Totals, | Truman M. Podson Coal Co. Kaska William, | Dodson Coal Co. | Beddall Brothers Greenwood, | Maryd, Waryd Coal Co. | Gorman and Campion. | Butcher Creek Coal Co. | East Lehigh Coal Co. | Phillips Brothers Silver Hill, | William Cook | Joseph H. Dennings Sebastopol, | Neil Breslin and Sons Coal Hill, | Dunkleberger and Young West Lehigh, |

*Miscellancous.

TABLE 3.-Continued

| | Grand total inside and outside | 27 | 9,224 |
|---------|--|------------------------------------|---------------|
| | Total outside | 21 | 3, 396 |
| | All other employes | 14 | 1,635 |
| | Вооккеерегs and clerks | | 33 |
| Outside | Slatepickers (men) | | 395 |
| nO | Slatepickers (boys) | | 661 |
| | Engineers and firemen | | 429 |
| | Blacksmiths and carpenters | 2 | 186 |
| | Еогетеп | | 37 |
| | Superintendents | 1 | 14 |
| | Total inside | | 5,828 |
| | All other employes | | 1,228 |
| | Company men | | 758 |
| | - Lumpmen | | 55 |
| Inside | Door boys and helpers | | 131 |
| I | Trivers and runners | | 379 |
| | . Miners' laborers | | 1,158 |
| | Miners | | 8 2,915 |
| | Fire bosses and assistants | : | 250 |
| | Mine foremen Assistant mine foremen | : | 17 |
| | County | Schuylkill, | 29 |
| | Names of Operators and Col- liertes | William H. Greenfield, Jr. and Co. | Grand totals, |

TABLE 3.—Recapitulation

| | 2,344 | 1,782 | 1,606 | 9, 224 |
|----|--------------------------------|---------------------------------|----------|---------|
| | 780 | 342 | 1,166 | 3,396 |
| | 361 | 297 | 256 | 1,635. |
| | 4 | 6-7 | 18 | 39 |
| | 163 | 738 | 112 | 395 |
| | 121 | 147 | 144 | 199 |
| | 8 | 222 | 51 | 429 |
| | 63 | 24 | 355 | 186 |
| | 4 | ಬಾಣ | 19 | 37 |
| | : | in | 10 | 13 |
| | 1,564 | 1,182 | 1,098 | 5,828 |
| 3. | 480 | 248 | 250 | 1,228 |
| | 298 | 116 | 152 | 758 |
| | 118 | 4,00 | 20 | 55 |
| | 128 | 10 | 27 31 | 131 |
| | 121 | 45 | 38 | 379 |
| | 233 | 312 | 251 | 1,158 |
| | 327 | 417 | 366 | 2,015 |
| | 17 | 112 | 11 | 80 |
| | 7 | -60 | C1 4t | 17 |
| | 00 | ¢100 | 63 63 | 29 |
| | | Schuylkill, | | |
| | Lehigh Coal and Navigation Co. | Mill Creek Coal to Wilkes Barre | Coal Co. | Totals, |

TABLE 3.-PART 2.

| Number of Dave Worked in Described | Number of Days Worked in Breaker | January March January May June June June June June June | Schuylkill, { 21 22 26 26 26 25 24 25 25 25 25 25 25 25 25 25 25 25 25 25 | Schuyikill, [21 18 25 22 25 24 26 26 23 25 25 25 24 26 26 23 25 25 24 26 26 28 25 25 25 25 25 25 25 25 25 25 25 25 25 | Schuylkill, [20 20 22 20 22 22 19 18 20 21 21 22 22 22 22 22 19 21 21 21 21 21 21 21 21 21 21 21 21 21 | 288 | Schuylkili, ?1 21 24 16 19 20 19 20 19 19 | 17 | Schuylkill, 1 15 13 3 18 21 19 22 17 20 | Schuylkill, 22 23 25 21 22 24 23 24 23 24 | Schuylkill. 5 15 15 16 00 00 |
|------------------------------------|----------------------------------|---|---|--|---|--|--|---------------------------|---|---|------------------------------|
| | | Names of Operators and Collieries | No. 8, No. 10, No. 11, No. 12, | Philadelphia and Reading Coal and Iron Co. Sliver Creek, Eagle Hill, | Buck Mountain, Vulcan, | Lehigh and Wilkes-Barre Coal Co. Honey Brook No. 5, Audenried No. 1, | Coxe Brothers and Co., Incorporated Oneida Nos. 1, 2, 3, | Truman M. Dodson Coal Co. | Morea, Dodson Coal Co. | Greenwood, | Maryd, Maryd Coal Co. |

TABLE 3.-PART 2.-Continued.

| | | | | | | Numk | Number of Days Worked in Breaker | ays Wo | rked in | Breake | £. | | | | |
|--------------|-----------------------------------|-------------|---------|----------|-------|-------|----------------------------------|--------|---------|---------|-----------|---------|----------|----------|-------|
| Names | Names of Operators and Collieries | County | January | February | Магећ | lindA | Мау | lune | July | reugu A | September | October | Хоvеmber | Dесеmbет | IstoT |
| Bell, | Gorman and Campion | Schuylkill, | 81 | 17 | 22 | - 23 | 12 | 57 | 19 | 45 | 16 | 25 | 2.9 | 18 | 252 |
| Laurel Run, | Butcher Creek Coal Co. | Schuylkill, | 7.5 | 15 | 30 | 23 | 3 | 25 | 22 | 16 | 13 | 24 | 16 | 22 | 251 |
| East Lehig! | East Lehigh Coal Co. | Sehuylkill, | 18 | 18 | 19 | 19 | 23 | 20 | 9 | 23 | 19 | 19 | 21 | 12 | 210 |
| Silver Hill, | Silver Hill, Phillips Brothers | Schuylkill, | 7 | 22 | 9 | | | | | 22 | 20 | - 3 | 19 | 20 | 139 |
| Oakley, | Oakley, William Cook | Schuylkill, | 22 | 21 | 8 | 17 | - 83 | 25 | 18 | 23 | 75 | 25 | 24 | 233 | 267 |
| Sebastopol, | Joseph H. Dennings Sebastopol, | Schuylkill, | 18 | 00 | 20 | 23 | 22 | 23 | 22 | 22 | 22 | 22 | 22 | 23 | 259 |
| Coal Hill, . | Coal Hill, | Schuylkill, | 19 | | 21 | 08 | 54 | 22 | 22 | 23 | 22 | 92 | 17 | 1 23 | 241 |
| West Lehig | West Lehigh, | Schuylkill, | 500 | 18 | | | | | | | | | | | 88 |

TABLE 4.-Fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Ferally injured by an explosion of powder in breast heading. Died January I. Fatally injured by a kick from a mule. Died same day. Face cut by a piece of coal. Died from | Holod policy no January 2. Killed by being caught between clay bank and humper of locomotive in strippings. Outside by being caught in the wheel of main driving belt in breaker. Outside. | ratary injured by a tail of coal. Dreusame day. Killed by a piece of rock rolling down the face of stripping. Outside. | Fatally injured by being struck by a piece of coal flying from a blast. Died April 17. Fatally injured by being struck by a piece of state on the head. Died two days later from paralysis resulting from the blow. Suffocated by a rush of coal in chute. | Killed by fall of slate. Killed by a fall of coal. Killed by a blast. Killed by falling down shaft, Fatally injured, caught between mine cars and died the same day. Outside. Killed by a fall of coal in breast. Killed by a fall of coal. Killed by a fall of slate. |
|---------------------------------------|---|--|--|---|--|
| County | | | Schuylkill, | | |
| Name of Mine | Bell, Silver Creek, | Honey Brook No. 5. West Lehigh, | |)) H | No. 8. No. 5. No. 5. No. 5. No. 6. No. 6. Eagle Hill, D. C. & N. Co. Bell, Bell, Bell, Suck Mountain, Onedda No. 3, Silver Creek, |
| Number of orphans | 9 1 4 | | | | |
| Number of widows | | - | | | H H H H |
| Married or single | M M M | vi vi ≥ | | : v2 × | KK KWK W |
| Ag's. | 50 50 | 36 | | 22 24 | 7.7 94 33 35 45 45 45 45 45 45 45 45 45 45 45 45 45 |
| noi}squovO | M.nor Load er M.n. r, | Laborer, Feeding counter screen. | Jackman, | Miner, | Laborer. Miner, Laborer, Laborer, Miner, Miner, Miner, Laborer, |
| Zationality | German, S avenian, German, | Hungarian, American, | Italian, | Austrian, Austrian, | Russian, Lithuanian, Polish, Polish, Nerican American Flungarian, American, |
| Name of Person | Peter Parber, Joseph Tirjet, Lewis Preil | Paul Buston, Elmer Schretrom, Charles O'Donnel | | Albert Elsenhower, John Mulhallock, | Michael Gladdish, Anthony Margalis, Anthony Matchais, Theodone Matchyez, Christ Krell, Chas Kohlmire, John Valinge, Michael Cupira, Henry Proseaseo, |
| Date of accident | 10 10 | 80 0 00 00 00 00 00 00 00 00 00 00 00 00 | | 13 6 | 25 25 17 17 17 17 17 17 17 17 17 17 17 17 17 |
| 122,000 | Jan. | Feb. | March | April | May |

TABLE 4.-Continued

| | Nature and Cause of Accident in Brief | Fatally injured by a fall of slate causing a compound fracture of the leg. Died | May 29. Killed by a fall of coal. Killed by a fall of slate. Killed by a fall of coal. | Killed by a fall of slate. Fatally injured. Fell under the dumper | and crushed. Died same day. Outside. Fatally injured; fell down counter chute, | districted spine. Died September Zi, Fatally injured by a piece of slate falling on him. Died in Pottsylle Hospital | same day. Fatally injured by falling into sprocket wheel of scraper line while in motion. | Died August 6. Outside. Killed by falling down water shaft. | Fatally injured. Caught between mine | Died same day. Fell under mine car. | Killed Same any, Cutsing. | Future figure of stripping. Died October | 4. Outside. Fatally injured by an explosion of gas. | injured | Fadally Injured by a fall of coal. Killed by a fall of top rock. Killed by an explosion of gas in breast. Killed Struck by mine car that had become detached from chain coming down the slope. | |
|--------------------|---------------------------------------|---|--|--|--|---|--|--|--------------------------------------|--------------------------------------|---------------------------|--|--|---------------|---|---|
| | County | E | | | T. | Ħ | F | K | | Et . | K | Ħ | Ţ. | Ä | FXXX | |
| TABLE 4.—Continued | Name of Mine | Audenried No. 4, | Oneida No. 3, Buck Mountain, L. C. & N. Co. | Silver Creek, | Maryd, | Silver Creek, | Bell, | L. C. & N. Co. | Middle Lehigh, Schuylkill, | L. C. & N. Co. | Silver Creek, | Honey Brook | Silver Creek, | Oneida No. 3, | Buck Mountain, Buck Mountain, Buck Mountain, Audenried No. 4 | |
| 4.—C | Number of orphans | | 63 : | :: | 3 | | : | 8 | 60 | | | 1 7 | 1 . 7 | 1 1 (| 4 ! ! | - |
| SLE | Married or single | : | M.S.M. | M.: | Μ. | M. | : | M. | Z | ; ioù | : vî | M. | M. | M. | M.W.W. | |
| LAL | Age Agains 40 Agains M | | 38 45 85 85 85 85 85 85 85 85 85 85 85 85 85 | 48 N | 39 I | 46 N | 61 | 40 A | 44 | 21 39 | 18 | 36 . N | 46 I | 39 N | 230 24 | |
| | Occupation | Miner, 4 | Miner, 3 Miner, 2 Miner, 4 | Miner, 4 | Miner, 3 | Miner, | Driver, | Laborer, 4 | Pumpen. | Driver, 2 | Spragger, 1 | Laborer, 3 | Miner, 4 | Miner, 3 | Miner 2 Laborer 3 Laborer 3 Bottom man, 2 | |
| | Nationality | Polish, | Hungarlan, Irish, | American, | Slavonian, . | Welsh, | Slavonian, . | American, | American, | Slavonian, | Polish, | Russian, | American, | Austrian, | Lithuanian, American, Lithuanian, Slavonian, | |
| | Name of Person | Charles Smith, | John Urbin, Frank McHugh, Simon Feller, | John Swain, Ben. Fleming, | George Moscow, | Thomas Bowen, | Michael Ondago, | Amandas Fry, | Patrick Toew, | Steve Unick, | Constanti Stempkofski, | Mike Lorzack, | Michael Connelly, | Joseph Frank, | Jos. Shoninsky, George Pisher. George Skernon, Simon Harango, | |
| | | . 33 | 222 | 1-1- | 0.1 | 24 | prod | 18 | 63 | 12 | 50 | c) | 19 | 23 | 22.5 | |
| | Date of accident | May | June | | July | | Aug. | | Sept. | | | Oct. | | | Nov. Dec. | |

TABLE 5.-Non-fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Hands burned by an explosion of powder in heading. Head cut by being thrown | down the manway of breast. Hands and face burned by gas. Went up | naked lamp on his head. Hands and face burned by gas. Accident | Hands burned by gas. Went up in his | differing a factor fairly of insignation on the gangway. Hands scaleded by hot water and steam. Was opening the tapped head of steam-pump, and hot water and steam. | out. Skull fractured. Caught between mine | car and mule. Rack bruised. Struck by a piece of coal | Irom blast. Leg fractured. A piece of coal fell off | the face of breast and struck him. Burned by gas. Disobeyed order of mine- | boss by working with naked lamp. Burned by gas. Cause of accident same | Leg fractured. He was standing on the | partorn of his breas, when a piece of coal rolled down and struck him, Hand smashed. Was forcing dynamite back in a hole with an iron bar in No. | 10 stripping and it exploded. Outside. Leg broken. A piece of coal fell on him from face of breast. | Body bruised by fail of coal in chute. |
|---------------------------------------|---|--|---|-------------------------------------|---|--|---|--|---|---|---------------------------------------|--|---|--|
| County | | | | | | | Schuylkill, | | | | | | | |
| Name of Mine | Bell, | Kaska William, | Kaska William, | Vulcan, | Morea, | Kaska William, | Buck Mountain, | L. C. & N. Co. | Vulcan, | Vulcan, | Honey Brook No. 5, | Honey Brook No. 5, | L. C. & N. Co. | L. C. & N. Co. |
| Married or single | υż | M. | Ä | M. | M. | M. | M. | Ä. | M. | bΩ | M. | M. | M. | M. |
| 984 | 24 | | 22 | .4. | . 33 | . 22 | 45 | 0.0 | 26 | 27 | 88 | 45 | 45 | 45 |
| neiżsqueco | Miner, | Miner, | Miner, | Miner, | Pumpman, | Driver, | Miner, | Miner, | Miner, | Laborer, | Miner, | Miner, | Miner, | Miner, |
| VallenolleV | Lithuanian, | Polish, | American, | Lithuanlan, | Polish, | American, | Lithuanian, | American, | Welsh, | Lithuanian, | Polish, | Italian, | German, | American, Miner, |
| Name of Person | Charles Whitkus, | William Liscavage, | George Demerling, | John Shernice, | John Baddock, | Andrew Coleman, | Andrew Steimo, | James Deeney, | Daniel Jones, | Joseph Gremer, | John Savaces, | Angelo Deforgo, | George Brode, | Patrick J. Boyle, |
| Date of accident | Jan. 6 | П | 11 | \$2 | | Feb. 1 | co | 6 | 10 | 10 | 13 | 14 | 15 | 18 |

TABLE 5.-Continued

| Nature and Cause of Accident in Brief | Hips and ribs injured. A piece of frozen dirt fell on thin on culm bank. Outside, but destrowed and three fingers of left hand blown off. Cut his fuse too short in firing a blast. Rupture of the urchars, struck by the gate of dirt dumper. Outside, it gangway. Healus and face burned by gas. He uponed his satiety lamp to light his pipe; his partner lattred a piece of too coal down which brought the gas in contact with the open lamp. Arm injured; twisted while sprakeing cans. Arm injured; twisted while sprakeing cans. Arm injured; twisted while sprakeing cut. A stick of dynamite and cap exploded in his hand. Shall fractured. Fell from platform in shaft. His head struck the pump at the bottom, in other to push down coul and jit the gas. Miners were not at work. Hards fell on him in broast. A piece of top Hards and face burned by gas. Went up head cut and fee burned by gas. Went up head of right feamur. A piece of slate fell on him in broast. A piece of slate fell on him in broast. Collar bone broken. In running to a place of safety to essense a trip of cars commit place had public out. By proken. Slipped on rail and fell under Los broken. Slipped on rail and fell under | car. |
|---------------------------------------|---|-----------------|
| County | Sehuylkill, | |
| Name of Mine | Greenwood, | |
| elgnis to beitteM | | |
| Age - | 25 24 46 35 27 27 27 28 28 29 29 29 29 29 29 29 29 29 29 29 29 29 | |
| noidequoo() | | |
| Kationality | Slavonian, Polish, Polish, Polish, Polish, Ifungarian, Polish, Polish, Polish, Polish, American, Polish, Slavonian, | |
| Name of Person | John Bidash, Blot Lacefski, Harry O'Brine, Mike Ruthuna, Anthony Verbiteky, William Jones, Mart. Maheelsky, Chas. Cotchure, Joseph Bullit, William McAnancy. Osic Haddick, George Satanake, | wilde Danielle, |
| freedengs to otsel | March 28 20 20 20 20 20 20 20 20 20 20 20 20 20 | |

| Body bruised. Fell down manway of his breast. Knee cap injured. One of the breaker boys pushed him over the coal pocket and he fell to the ground. Outside, Ribs broken. Fell while running to a place of safety from a chost he man of the control of safety from a chost he man of the control of safety from a chost he man of the control of safety from a chost he man of the control of safety from a chost he man of the control of safety from a chost he man of the control of safety from a chost he man of the control of safety from a chost he man of the control of safety from a chost he man of the control of safety from a chost he man of the control of safety from a chost he man of the control of safety from a chost he control of the control of safety from a chost he control of the control of safety from a chost he control of safety from a chost he control of the control of the control of safety from a chost he control of the control of safety from a chost he control of the control of safety from a chost he chost | ing in face of gangway. Head and arms cut. He was assisting the miners to tamp a hole in gangway when blast exploded. Rib fractured. Struck by flying coal from a blast. He cut his tuse too short. Face burned by gas, He put fresh coal | on the fire under the boilers and neglected to put on the stack blower. The gas accumulated under the boilers and exploded. Outside under the boilers and Leg scalded and head cut. Collision between the locomotives on dirt bank caused pipe to break allowing steam to escape. Outside. | Wrist dislocated, Fell out of box car to the ground under breaker, Outside Face and hands burned by gas, Some person unknown Closed a door on the person unknown Closed a door on the | Schuylkill, Hands and face burned by gas. Was with | Smith when the gas exploded, Hands and face burned by gas. Was with Smith. Hands and face burned by gas. His parte- hands and face burned by gas. His parte- hands and face burned by gas. | traveling through the heading that was were sitting in and ignited the gas. Honds and face burned by gas. He struck a match while gas was traveling through the heading he was sitting in | and ignited it. Hands and face burned by gas in heading. | Head crushed. Caught between the turn table and frame of mine car. Bruise of the testicles. He fell on the edge of a slate box in the breaker. | Outside. Head cut and great toe broken. A piece of rock fell from the top in the gang-way. Ankle sprained. He fell down a pair of | steps in the breaker. |
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| Wi Wi Bro | hill h, Bro | wood | 10. | 30 | 10 % . % . 10 % | 10. | | ried Cree | ried | |
| Kaska William, Kaska William, Honey Brook No. 5, | Eagle Hill, Vulcan, Iloney Brook No. 5, | S. Greenwood, | L. C. & | L. C. & | L. C. & No. 10. L. C. & No. 10. | L. C. & | L. C. & N. | Audenried No. 4, Silver Creek, | M. Audenried No. 4 S. Oneida, | |
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| 33 46 | 33 35 31 | 19 | 45 | 88 | 24 | 42 | | 15 | 82 48 | |
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| cker, | | ngin | | : £ | | | | cker, | , | |
| Miner, | Laborer, Miner, | Loco, engineer, | Miner, | Laborer, | Laborer, Miner, . | Miner, | Miner, | Laborer, Slatepicker, | Laborer, 48 Engineer, 28 | |
| | | | | | | | M | Sla | La En | |
| | | | | | | | | | : : | |
| Lithuanian, Polish, | Polish, | can, | dan, | lan, | Slavonian, | American, | American, | Hungarian, American, | Slavonian, | |
| Lithua: Polish, Irish, | olish ithua meri | American, | Slavonian, | Slavonian, | avon | meri | meri | Hungarlan, American, | avon | |
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| ouska Fregi | wder, avalo | erber | th, | cavis | habe | Mull | ong. | renn | ernet ledy, | |
| n Sal ny C | ny S m B | rt G | Smi | Mate | Ya Sh | r Mc | I SE | Ls B | w S | |
| Joseph Sabuska, Anthony Gregite, William Gallagher, | Stiney Powder, | Herbert Gerber, . | Mike Smith, | Ignes Matcavish, | Stiney Yahabet, George Shadrine, | Rodger McMulligan, | Thomas Long, | Thomas Brennan, | Andrew Sernetsky, John Kennedy, | |
| 14 J | 3 3 A A | 8 F | | 11 | 11 S 12 G | 12 | | 13 E | 15 A | |
| April 14 Joseph Sabuska, 15 Anthony Gregite, 27 William Gallagher, | | | | | | | | | | |
| Ap | May | | | | | | | | | |

29-22-1905

TABLE 5-Continued

| Nature and Cause of Accident in Brief | Thigh broken. He was struck by an empty car while gravitating from top | of breaker to top of shaft. Outside, Bruised knee cap, In removing the box of a dumper from one truck to another, | it slipped and fell on him. Outside, Leg broken. He was riding on a mine | tart in the state of the state | with a naked lamp on his head. Hands, face and eye injured. Charge of dynamite exploded before he had time | to seek a place of safety. Scalp Wounded. A piece of coal struck | him on head. Hands and face burned by gas. Went into his breast in the morning with | naked lamp on his head. Leg broken. A plece of top coal fell and | Foot crushed. Wheel of ash truck ran | Head cut and body bruised. Fell down | Thead and back cut by a fall of coal while | Finger cut off. Hand caught between the piston and head of cylinder of pump. | | manway of breast. Back bruised. A piece of coal fell on hilm at face of gangway. Head and body bruised. Fell down the manway of the breast. |
|---------------------------------------|--|---|--|---|--|--|---|--|--------------------------------------|--------------------------------------|--|--|------------------|---|
| County | | | | | | | | Schuylkill, | | | | | | |
| Name of Mine | Silver Creek, | Audenried No. 4, | Audenried No. 4, | Silver Creek, | Audenried No. 4, | Honey Brook No. 5, | Morea, | Silver Creek, | Audenried No. 4, | Kaska William, | Vulcan, | Oneida, | Audenried No. 4, | Eagle Hill, Kaska William, |
| Married or single | | M. | M. | vi | M. | M. | M. | υż | υż | M. | M. | M. | vi | ∑ 8i |
| Age | 15 | 32 | 101 | 56 | 100 | C) | 30 | 32 | 24 | 53 | <u>ci</u> | <u> </u> | 83 | 55 45 |
| noitsquoo() | Slatepicker, | Laborer, | Driver, | Miner, | Miner, | Laborer, | Miner, | Miner, | Laborer, | Miner, | Miner, | Fireman, | Miner, | Miner, |
| Villensiig | American, | Russian, | Slavonian, | Polish, | Irish, | Hungarian, | Slavonian, | Polish, | Hungarian, | Lithuanian, | Polish, | American, | Lithuanian, | Polish, |
| Name of Person | John Kline, | Mike Conrack, | Mike Ruba, | Joseph Sowen, | Peter Sheridan, | Alex, Sinersko, | Anthony Semark, | Jacob Stoner, | Lewis Marva, | Frank Shoilla, | Phillip Statts, | Lynn Houser, | J. hn Lokitus, | J hn Sunadofski, |
| fushions to stad | May 15 | 11 | 15 | 9.7 | 97 | 65 | 53 | June ; | c1 | 11 | 1.5 | 1- | C+ | ដ គំ |

01 01 1- 00

July

11 14 82 82

4 23

17

17

| Arm broken. Clothes caught in the scraper line and drauged him. Outside. Head and back brutsed. Fell off a plank in the breaker a distance of nine feet. Guiside. Hands and face burned by gas. He stepped up on the planform of the inside chute in Past Buck Mountain gangway | to light his safety lamp and ignited the gas. Leg broken. A piece of timber on which he was standing was disturbed and he fell off and broke his leg. Leg broken. A piece of slate fell on him at face of gangway. Fingers cut. In lifting a lump of coal | into the car his hand was caught on top rail. Outside. Hands and face burned by gas. Gas was ignited from a shot he fired in the breast and burned him while sitting in the heading some distance away. Hands and face burned by gas. Same as | above accelerate. Rands and tace burned by gas. He struck a match to light his safety lamp in breast and ignited the gas. Fingers blown off. He rammed an iron bar into a hole containing dynamite that had failed to explode from a | former blast. He was working at the valve while the pump was in motion and bis hand was caught with plunger. Cultar bone broken. He had lighted two holes in the breast and thoucht both went off. When he returned the second | hole exploded and the flying coal struck him. Hand crushed. Caught between the bumpers of the cars on the bottom turn out. Hands and face burned by gas. He went with naked lamp to remove gas from the face of breast by brushing it with a | canvas. Canvas. Canvas. On him in breast. Pace out and scalp wounded. A piece of for control for the control for control for the control for can feel on him at face of breast. Foot crushed. He stell-ped into the chute to start the battery when a piece of control for control for can realing down caught his foot against the break stick. |
|---|--|---|--|--|--|---|
| | | | Schuylkill, | | | · |
| S. Kaska William,) M. Oneida, M. Audenried No. 4, | L, C, & N. Co. No. 10. Maryd, Audenried No. 4, | L. C. & N. Co. L. C. & N. Co. | Raska William, Schuylkill, | Greenwood, | L. C. & N. Co. No. 10. Vulcan, | Maryd, Maryd, L, C, & N, Co. No. 10. |
| K K S | is is | N. X | 30 : M. | vi vi | vi vi | ≅ bù vù . |
| 33 31 | 13 13 | 92 44 | | 8 4 | 22 23 | 90 30 |
| American, Jig runner, Laborer, American, Fire boss, | Driver boss, Laborer, | Latorer, | Miner, | Pump engineer, | Driver, Laborer, | Miner, Miner, Laborer, |
| | American, Slavonian, | Slavonian, | Polish, | American, Polish, | American, | Slavenian, Slavonian, |
| Elmer Evans, | Caleb D. Thomas, Lawrence Novaeks, George Shaughnessy, | Ignot Sloboda,James O'Donnel, | William Botts Kumis, | Charles E. Coley, Joseph Pelarchuck, | Daniel Preloor, | Mike Undago, John Bresko, Loanlei M. Galloway, |

TABLE 5.-Continued

| Nature and Cause of Accident in Brief | Body bruised, thumb and two fingers blown off. He charged a hole in face of breast and stooped down to gather his rouls to put them in a place of safety; the flame of his lamp touched the squib | | Fingers bruised in trying to adjust a | tion. Outside. Head out. Struck by a nut flying from a bolt he was cutting. Outside. | | Shaft. Shall bone in leg broken. He was sitting in a blank heading in pillar breast No. 6 and No. 7 breast East. Front vein. The | minner in No. 1 Disast iterate stan water blow through to the side where he was sitting and the fixing coal struck him. Body bruised, Caught between empty and leaded mine cars on turnout at bottom of shaft | Head cut by a piece of coal flying from a | Face and hands burned by kas. He punctured the gauge of his safety lamp with a pick, allowing the gas to enter the | lamp and ignite. Face and hands burned by gas. Jeglis went up in the morning with a naked lamp on his head, disobeying orders of fire-boss. |
|---------------------------------------|---|--------------------|---------------------------------------|--|------------------|--|---|---|--|---|
| County | | | | | | Schuylkill, | | | | |
| Name of Mine | Kaska William, | Honey Brook No. 5. | Oneida, | Oneida, | Maryd, | Vulcan, | Silver Creek, | Vulcan, | Vulcan, | Silver Creek, |
| Married or single | vi | Ä. | : | M. | M. | M | M. | vi | M | vi vi |
| 93A | 29 | 51 | 17 | 41 | 45 | 25 | 00 61 | 24 | 48 | 22 28 |
| noisequesoO | Miner, | Miner, 51 | Loco. patcher,. | Laborer, | Charge man, | Miner, | Luader, | Loader, | Miner, | Miner, |
| Nationality | Lithuanian, | Polish, | American, | American, | Slavonian, | Welsh, | Polish, | Polish, | Irish, | Polish, |
| Name of Person | Dominick Meskinis, | Alex. Adamovitch, | Cormae Kennady, | Frank Singley, | Andrew Sweigard, | David T. Davis, | Mike Ferris. | Andrew Mosek, | Ed. Martin. | 14 Andrew Jeglis, |
| Habiva to stad | Sept. 13 | 120 | 57 | ñ | 16 | 97 | Oct. | 11 | 11 | 14 14 |

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|---|---|--|---|--|---|---|---|---|--|---------------------------------------|---------------------------------------|--|---|---|--|---|---|---|--|---|--|---|---|----------------------|---|---|
| I on ourselved . Ance one of their of mine acre | ht him Ampu- | tation was necessary. Head bruised Caught between mine cars | and team of mules turning on turnoutrm broken and head cut. Thrown down | manway of breast by rush of coal from corner of heading he was driving. | Caught | Arm fractured. In making room for a set of timber on the gangway, a piece | of coal fell and struck him. Hands and face burned by gas. He put his light in a hole over the gangway | above the line of air current and ignited | Ribs fractured; caught between mine cars | Ankle broken. He was starting a head- | ing in preast pillars when a piece of | pally blown on. He was in the act of parting off a blast of dynamite in a partiting off the form | ignited the powder in the squib setting | Caught t | tween mule and mine car. Leg bruised. Caught between chute and | box car under the breaker. Outside. Lacerated face and eye injured. He re- | turned after lighting the fuse to set on a blast, to find out why it was delayed, | when it exploded. Arm broken. Caught between top rail of | gangway. | black powder and put dynamite in the back of it. The black powder exploded. | When he returned to see what execution had been done, the dynamite exploded. However mutting a hoard | and clushed the cog wheels to protect persons | le. | | Face cut. Kicked by a mule. Shoulder dislocated. He was starting coal on the sheet from in breast No. 56 East | Bottom branch No. 3 plane when he slipped and fell. |
| 00 | jumped the track and caught against gangway on high side. | een m | g on Throv | manway of breast by rush of coal corner of heading he was driving. | smashed. | roon way, | gas. | nt and | een m | rting | e i | ynami of h | squib | | en ch | box car under the breaker. Outside, accerated face and eye injured. He | use to | en tol | of ga | namite vder e | lite ex | and clusters in the mass parties a constraint of the constraint when the constraint when his hand | Outside. | | le. s start it No. | me w |
| of this | and | betw | cut. | v rush | sma mine | gang | k him ed by over | curre | betw | s sta | S WIN | of d | n the | ematurely. | betwe | eaker ye inj | the i | betwe | side | at dyl | lynam | s to p | ery. | 'n | a mul | 3 pla |
| 200 | ack | essary | head | ast by | hand rs of | In m | struc burne | of air | aught | He wa | pillar him | blast | der i | | ught | the br | out | d. ught | n low ad ch | e blac | the c | wheel | onnt iachin Cau | e car | d by Ed. H | . Zo. |
| 1. 620 | jumped the track against gangway or | tation was necessary. | Arm broken and head cut. | of bre headi | Thumb on right hand smashed. between humbers of mine cars | red. | of coal fell and struck him. Iands and face burned by g his light in a hole over t | line (| red; c | en. F | top coal fell on him. | ff a | e pow | off the blast prematurely. Shoulder blade dislocated. | tween mule and mine car. | face a | ter Hg o find | xplode . Ca | car and rock on low side of Face cut. He had charged a | der a | done, | e cog | passing that point when caught in the machinery. Hand smashed. Caucht | bumper of mine cars. | Kicked by a mule. islocated. He was sheet iron in breast | Bottom branch slipped and fell. |
| Sodom | ped t | on wa | ream | way (| b on | fracti of tin | oal fel s and light | the the | ibs fractured | brok | coal 1 | ing o | ed th | he bl | en mu | car u | ed afi ast, t | n it e broker | and r | k pow | been | nd th | the in | per o | cut. Jer dis | om bi |
| T one o | jum | tatic | Arm 1 | corn | $Thum_{hetw}$ | Arm | of co Hands his | abov | Ribs 1 | Ankle | top | putt | ignii | Should | Leg k | Lacer | turn a bl | Arm | Face | back | had Hand | aron | rass caug Hand | bum | Face cut. Shoulder d | Botto |
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FATAL ACCIDENTS

Falls of Coal, Slate and Roof

No. 10 Colliery, Lehigh Coal and Navigation Company.—February 18, Charles O'Donnel, miner, was fatally injured February 18 and died next day. He was driving a chute in the pillar between No. 6 and No. 7 breasts East Forty Foot vein. He heard some coal fall below him in the chute, and he and his partner made a dash to get down to a place of safety. They had reached a distance of twenty feet from where they were working, when three sets of timber swung out of the places, on account of extra pressure from the side, and the timber and falling coal, caught them both. O'Donnel's partner was not seriously injured.

No. 8 Colliery, Lehigh Coal and Navigation Company.—April 13, John Mulhallock, miner, was killed in East Mammoth vein, No. 8 slope. He was robbing pillars and taking out the stumps to the gangway. He was down to within twelve feet of the gangway with the stump and had made room for a set of timber to start a chute back to the top rock to get the top coal over the gangway. Before he could get his timber in place the top and upper side broke down and let the loose gob fall on him. He was smothered

before they could release him.

Vulcan Colliery.—April 22, Anthony Margalis was killed by a fall of coal in No. 32 breast, East Bottom Split, No. 1 gangway. He had fired a blast on the top of his inside manway before going home the evening previous, and when he started to work to trim the loose pieces of coal down, a rush of coal came from the face of the breast and caught him against the prop, on the top of the manway.

Oneida No. 3 Colliery, Coxe Brothers and Company, Inc.—May 16, Michael Cupina, miner, was killed at face of breast by a piece of coal falling on him. He was drilling a hole in face of breast, and a slip of coal shaped like the letter V, fell from the top bench on his back. His partner had told him he did not think it was safe to work under it, but Cupina took his pick and tested it and pronounced it all right.

Oneida Colliery, Coxe Brothers and Company, Inc.—May 23, John Urbin was killed by a fall of coal in breast 892, No. 1 West Counter No. 6 slope. He returned after firing a shot in the face of breast. A piece of coal fell from the middle bench, struck him on the head and knocked him down. He fell on a sharp piece of coal which

penetrated his skull.

No. 10 Colliery, Lehigh Coal and Navigation Company.—June 15, Simon Feller, miner, was killed. He was driving a narrow chute through the center of the pillar for the purpose of robbing it back. The fire-boss told him to put some relief timber to secure his place. After putting a set in he went to drive a plank over an old set to act as a force pole, and in doing this he forced the collar off the legs, letting the coal fall on him. He was buried under it for several hours.

Buck Mountain Colliery, Mill Creek Coal Company, November 27.—Joseph Shopinsky, miner, was fatally injured November 27 by a piece of coal falling on him at face of breast and knocking him

down the manway, a distance of thirty feet. He was taken to the Miners' Hospital in Ashland, where he died.

Oneida No. 3 Colliery, Coxe Brothers and Company, Inc., April 6.—Albert Eisenhower, miner, was fatally injured by a fall of slate. He was assisting the company men to stand a prop in a breast on a light angle, when a piece of slate fell and struck him on the head. The accident seemed so trifling that his father, who worked with him, did not think it necessary to accompany him home. He died

April 8 from paralysis.

Green Mountain Tunnel, No. 5, Honey Brook Colliery, April 14.—Michael Gladdish, miner, was killed in East Lykens vein. The accident occurred in No. 9 chute, where the vein dips at an angle of 80 degrees. At the point where the chute holed into the heading the dip changed to 90 degrees, and the nature of the bottom slate also changed becoming faulty, with sulphur boulders running through it. Gladdish was in the act of making room for a prop when one of the boulders in the bottom turned out and fell on him, burying him under it in the soft dirt. His rescuers could hear him talk long after the accident occurred. He remained in the chute for three hours and died before he could be released.

Bell Colliery, May 13.—Charles Kohlmire, miner, was killed in Breast No. 38, East Holmes vein. He had fired a hole three feet from the rib in the breast and returned to dress it down. The last prop in the breast was close to the face. In getting into the breast over this prop a piece of bone, forming a slip, turned out and caught

him against the prop and killed him.

Buck Mountain Colliery, May 13.—John Valingo, miner, was killed by a piece of slate falling on him in No. 9 breast East Skidmore vein, No. 4 lift. He had started to drive a heading in the pillar from No. 9 to No. 8 breast, where a piece of clod or slate 8 inches thick extended out over the face of the breast. When he took away the coal that was supporting this slate it fell on him killing him

instantly.

Silver Creek Colliery, May 22.—Henry Procasko, laborer, was killed by a piece of slate falling on him at the face of West 7 foot gangway. He was laboring for his father in the gangway and was in the act of drilling a hole to bring up the level for the purpose of advancing his track to put up a set of timber. A piece of sulphur ball and slate mixed, fell or him, killing him instantly. His father claimed that he sounded it a short time before and considered it safe to work under.

Audenried No. 4 Colliery, May 23.—Charles Smith, miner, was fatally injured by fall of slate in breast No. 9 West Gamma vein No. 2 plane. The vein had been flat and it was about to increase in pitch. Smith was drilling a hole in the bottom slate when a piece of slate 3 feet by 2 feet 6 inches thick fell down from the top, first striking the gob he had built on the side, then turning over and striking him on the leg, causing a compound fracture. He was taken to the Hazleton Hospital and died May 29.

Buck Mountain Colliery, May 31.—Frank McHugh, miner, was killed instantly in No. 14 breast, No. 6 lift, East Buck Mountain vein. He was sitting back about fifteen feet from the face of the breast, close to the pillar, sharpening his drill, when a piece of slate that had been weakened by starting a heading in the pillar, fell on

him. The fire boss claims that he had ordered him to take it down that morning.

Silver Creek Colliery, June 17.—John Swain, miner, was instantly killed. He was driving a narrow hole from the face of No. 75 breast, West Seven Foot vein, No. 1 plane, for the purpose of ventilation. He had fired a shot in the face of hole and returned to dress down the loose coal when a piece of top slate fell on him.

Silver Creek Colliery, July 24.—Thomas Bowen, miner, was fatally injured by a fall of slate. He was working in No. 1 breast West Bottom Split, No. 4 plane, and was preparing to put down a sheet iron when a piece of slate from the middle of the vein fell and rolled over and caught him against the pillar breaking his leg and almost severing his arm. He was taken to the Pottsville Hospital and died the same day.

Oneida Colliery, October 31.—Joseph Frank, miner, was killed in No. 6 slope. He had taken down the top coal and before loading it should have taken down the clod that was between the top coal and main roof, as it would be inconvenient to do it after the loose coal had been loaded up. His partner wanted him to do it in that way, but he insisted on loading a car first. Before the car was loaded a piece of the clod fell on him, and he died before being taken out of the breast.

No. 5 Honey Brook Colliery, October 2.—Michael Lorzack, laborer, was fatally injured in No. 8 stripping. He was drilling a hole at the bottom of the stripping when a piece of rock rolled from the top of the bank and struck him on the head. He was taken to the Miners'

Hospital at Hazleton and died October 4.

Buck Mountain Colliery, December 6.—George Fisher, laborer, was instantly killed by a fall of roof. He was sent with a miner and another laborer to put some timber in the stable and to enlarge it. There is a chute leading from the gangway up to the stable and in this chute there were two props standing which were in the way of the work they were about to do. The miner was cutting out the props, and as Fisher was passing by him to go up into the stable a piece of roof fell on him. The miner claims that the props were not holding up the roof and that he had tested it a short time before the accident occurred and considered it safe to work under.

Mine Cars.

No. 11 Colliery, Lehigh Coal and Navigation Company, May 1.—Christ Krell, laborer outside, was fatally injured. He was driving a team of mules at the bottom of the fuel plane. In pulling an empty car from the bottom of the plane he unhitched his team from the car and thought to pass between the moving car and a car that was standing on the turnout. He was caught between the bumpers and fatally injured. He died at his home same day.

No. 12 Colliery, Lehigh Coal and Navigation Company, June 17.—Benjamin Fleming, driver, was fatally injured on dirt bank. He was standing on the front of the dirt dumper coming in from the end of the bank. A light chain was attached to the spreader for the purpose of throwing the hook out of the eye bolt of the truck of the dumper. When not in use it was lying loose across the bumper. The hook slipped out of the eye bolt and in pulling the small chain

it caught his foot and pulled him off. He fell in front of the

dumper and was injured internally. He died the same day.

Middle Lehigh Colliery, Mill Creek Coal Company, September 2.—Patrick Toew, pump man in No. 3 slope, was fatally injured. The men who were working on the night turn had come to the surface and were resting in the engine house. Toew signaled to the engineer to hoist the car but when the car came to the surface the engineer could see no one, but thought he heard some one moan. He found Toew unconscious in the car. It is supposed that he was riding on the front of the car and was caught by a low collar on the slope and dragged into the car.

No. 8 Colliery, Lehigh Coal and Navigation Company, September 12.—Stephen Unick, driver, was injured September 12. He was driving on the rock bank and was standing on the front bumper of the empty dumper coming in from the end of the bank. He slipped and fell between the rails and was rolled under the truck for some

distance. He died September 27.

Silver Creek Colliery, September 30.—Constanti Stempkofski, spragger on the bottom of the shaft, was instantly killed. He was standing on the west side of the shaft. The last car of coal on West turnout having been put on the cage on the south side, he made an attempt to go over to the east side to put a loaded car on the descending cage on the north side. He delayed too long before crossing and was caught under the descending cage.

Audenried No. 4 Colliery, December 23.—Simon Harango, bottom man, was killed on the bottom of No. 4 slope. He was standing on the bottom after preparing the car to be hoisted and was about five feet from a safety hole. The empty car coming down the trestle, before entering the timber at the mouth of the slope, jumped the track and caught him against a prop, severing his head from his

body.

Explosions of Gas.

Silver Creek Colliery, October 19.—Michael Connelly, miner, was fatally burned by gas. He had fired a blast in his breast and on account of the coal working heavily he remained in the monkey heading for two hours. When the coal ceased working, he kept his naked lamp burning on his head, and went up the manway. Before reaching the face of his breast he met a body of gas which he ignited with his naked lamp. He died October 24 in the Miners' Hospital.

Buck Mountain Colliery, December 12.—George Skermon, laborer, was killed by an explosion of gas in No. 24 breast. No 6 lift East Buck Mountain vein. The fire boss in making his rounds in the morning found gas in the breast, removed it and notified the miner what he had done. The miner was driving a heading at the face of his breast in the pillar towards No. 23 breast. The heading was almost through and he left his own breast and went into No. 23 breast and drilled a hole to blow it through when he was ready to fire the blast. He says he told the laborer to go down to the lower heading, but he did not go. When the blast went off it blew through, as he expected, and ignited the gas which had accumulated at the face of the breast. The concussion of the blast threw Skermon against the pillar, killing him.

No. 10 Colliery, Lehigh Coal and Navigation Company, March 20.—John Skoa, miner, was suffocated by gas in East Forty Foot vein. He was working in No. 6 chute. The fire boss had reported to him that morning that there was gas in his place and told him not to go up to the face to work, but to start down from the face 200 feet and put in some relief timber. He went to the face of the chute, it is supposed, for some tools to work with. He penetrated the gas for a distance of twenty feet, where he fell and was suffocated.

Explosions of Powder

Bell Colliery, January 6.—Peter Farber, miner, was fatally injured by an explosion of powder. He died January 7 in the Miners' Hos pital at Ashland. He had gone to the heading close to the face of the breast with a naked lamp to prepare a cartridge to make a blast, and in some way ignited a keg of powder.

Blasts.

Oneida, March 6.—Angelo Sartori, miner in No. 3 slope, was injured by being struck by a piece of coal from a blast. He died in

the Hazleton Hospital April 16.

Eagle Hill Colliery, April 25.—Adam Bellulis, miner, was killed by a premature blast of dynamite in a hole he was charging in the West Seven Foot gangway. He had drilled a hole in the bottom slate of the gangway, and it appears that the bit of the drill was worn down, making the diameter of the hole smaller than the cartridge. He had put four sticks of dynamite in the hole, and in forcing the last piece with an iron scraper the dynamite exploded.

Falling into Shafts, Slopes, etc.

Morea Colliery, April 27.—Theodore Matctycz was killed by falling down the shaft. He was sent down from the first level to the second, to take the cage on the shaft to go down to the third level where he was to work at loading coal. When he got to the bottom of the traveling way on the second level he was at the east side of the shaft. He saw some men standing on the west side and in attempting to reach them he fell down the shaft, a distance of 115 feet in the sump.

Lehigh Coal and Navigation Company, August 18.—Amandas Fry, laborer, was killed by falling down No. 10 Water Shaft. He was removing the pipe of a small pump that was used while sinking the shaft, and fell down the shaft into thirty-two feet of water, a distance of 272 feet. After searching for three hours his body was

recovered.

Maryd Colliery, July 21.—George Moscow, miner, was fatally injured by falling down the counter chute in No. 2 drift back basin. He was working in the West Counter Mammoth vein. In going over the top of the counter chute he slipped on the sheet iron and slid or rolled down the chute for a distance of 75 feet. He was taken to the Miners' Hospital and died the same day.

Mules

Silver-Creek Colliery, January 9.—Joseph Tirpot, loader, was fatally injured by being kicked by a mule. He died January 10. He had opened the door on the gangway to allow the driver to pass through with a trip of mine cars, and stood on the low side of the gangway with his body close to the edge of the door to keep it open. When the mule passed him it had its leg over the traces and without any warning kicked with the foot that was over the trace, and struck Tirpot on the forehead.

Machinery.

West Lehigh Breaker, February 9.—Elmer Schretrom, occupation, feeding the coal into the screen, was killed in a large belt wheel. The belt that was turning the counter screen jumped off the pulley and the machinery was stopped to put it on. When the belt was put on the pulley Schretrom told the engineer to start up. The engineer called back to know if it was all right and Schretrom answered as if he was in a hurry. He wanted to get the coal out of the screen so that it would not freeze by standing over night. That was the last heard from him. He was next seen in the pit of the large belt wheel entangled in the inner circle of the wheel.

Bell colliery, August 1.—Michael Ondago, driver, was fatally injured. He was employed hauling culm with a horse and cart and dumping it in the pit of the scraper line to be conveyed by the scraper up to the breaker. In dumping the cart the tail-board fell into the pit and in trying to recover it he lost his balance and fell into the pit. He became entangled in the sprocket wheel, and his arm and several ribs were broken. He died August 6 at the Miners' Hospital.

Miscellaneous.

Greenwood Tunnel, January 10.—Lewis Pfeil, miner, was opening West Mammoth gangway. He was struck by coal flying from his

pick. Blood poison set in and he died January 22.

No. 5 Honeybrook Colliery, February 3.—Paul Bustan, laborer, on stripping at Green Mountain was fatally injured and died in Hazleton Hospital February 11. He was standing in front of a locomotive heating an iron bar in the fire box to drill a hole in a frozen clay bank. The place where he stood was but a few feet from the bank. A second locomotive moved up behind, bumped the one he was standing in front of, and caught him against the bank.

No. 10 Southeast Stripping, March 6.—Joseph Real, jackman, was killed by a piece of rock rolling down the face of the stripping. They were stripping the top rock of Mammoth vein. The rock was shaken with a heavy charge of powder and was lying in its natural position at an angle of 50 degrees. The steam shovel box had filled itself and was swinging around to dump in the car. Real was standing at the left when a piece of rock rolled down the face of the cut, a distance of 12 feet and struck him.

CONDITION OF COLLIERIES AND IMPROVEMENTS

LEHIGH COAL AND NAVIGATION COMPANY

No. 8 Colliery.—A 600 H. P. battery of water-tube boilers has

been installed to increase the capacity of the steam plant.

No. 10 Colliery.—A new breaker has been put in successful operation and the old breaker has been torn down; 2,400 H. P. boilers have been erected, making a total of 4,800 horse power. A pair of 30 by 60 hoisting engines has been erected at the new coal shaft and the shaft is now in operation.

A pair of 42 by 60 hoisting engines has been erected at the water-shaft and the pumps have been abandoned. An additional pair of 42 by 60 engines is in process of installation at the water-shaft to

provide ample capacity during times of high water.

No. 11 Colliery.—Two batteries of boilers, 250 H. P. each, have

been added to the breaker steam plant.

No. 14 Colliery.—A railroad has been graded, and the sinking of a two-compartment coal shaft and four-compartment water-shaft has been commenced at No. 14 Colliery about one mile east of Tamaqua on the north side of the Valley. The coal shaft is now down about 400 feet and the water-shaft about 300 feet.

A 600 H. P. battery of Sterling boilers has been erected, and an

air compressor, with compound air cylinders installed.

No. 15 Colliery.—A washery has been erected on the site of the old No. 10 breaker, to handle the old No. 10 banks and provide fuel for the Company's mining operations from that source. This plant will be put in operation in the Spring of 1906. Condition of colliery is good.

PHILADELPHIA AND READING COAL AND IRON COMPANY

Silver Creek Colliery.—The tunnel on No. 1 Plane to Windy Harbor Basin, mentioned in last year's report, is still being driven. A vein of coal 8 feet 9 inches on North Dip was cut, at 452 feet from Mammoth vein on South Dip, at 501 feet a vein 3 feet thick on North Dip was cut, at 577 feet a 10 foot vein was cut, on South Dip a second vein 11 feet 6 inches was cut, on South Dip at 660 feet a third vein 13 feet thick on South Dip was cut at a distance of 737 feet.

The tunnel is being extended to cut Skidmore and Buck Mountain vein, the total distance at closing of the year was 800 feet.

Tunnel has been completed on No. 3 Plane between Holmes and Primrose vein, a distance of 412 feet.

Tunnel completed on No. 4 Plane between Bottom and Top bench of Mammoth vein, a distance of 143 feet.

Tunnel on No. 4 Plane from East Skidmore vein to connect with tunnel from Bottom to Top Bench is now being driven. Condition of colliery is good.

Eagle Hill Colliery.—A tunnel from Seven Foot vein to Bottom

Bench on West Side, has been completed; length 18 yards.

Tunnel from Primrose to Holmes vein has been driven; length 47 2-3 yards.

The New Shaft commenced in December, 1903, is now completed;

total depth of shaft 1,250 feet. A level is now being turned at a distance of 1,050 feet from the surface. From this level a tunnel will be driven north, cutting several veins of coal. Condition of colliery is good.

MILL CREEK COAL COMPANY

Buck Mountain Colliery.—The tunnel on the No. 4 level commenced in 1903 from the North Dip of the Buck Mountain vein, cutting the several veins on North and South Dip, has been completed by cutting the Bottom Split of Mammoth vein on the South Dip; total length of tunnel 1,166 feet.

A compressed air locomotive has been installed on the 6th level

No. 3 Slope. Condition of colliery is fair.

Vulcan Colliery.—A tunnel and Rock Plane has been driven from the Top Split of Mammoth vein to the basin of the Primrose vein, on 3rd level; length of tunnel 200 feet; length of plane 98 feet, on South Dip 25 feet.

A tunnel is now being driven on the 4th level from the Bottom Split on North Dip to Top Split on South Dip. This tunnel has cut the Middle and Top Split on North Dip and will have to be driven

150 feet more to cut the Top Split on South Dip.

The tunnel on No. 5 level from Buck Mountain vein on North Dip to Skidmore on North Dip has been completed; length of tunnel 243 feet. This tunnel will be continued to the basin of the Bottom Split of Mammoth vein. A new Goyne pump has been installed on 4th lift to meet future emergencies.

A new lift has been sunk on No. 1 slope from the 5th to the 6th level, and they are now turning off the bottom, east and west of

the slope.

Drainage is poor; ventilation fair, except in Top Split on South

Dip in 3rd lift.

Middle Lehigh Colliery.—The new breaker at this colliery is finished and rail tracks are completed. They are ready to resume work when inside workings are in proper shape.

Two large Jeanesville compound pumps were installed on the first

and two on the third lift.

They commenced pumping water from this slope September 1, 1904, and on August 16, 1905, the mine was free from water. Work was commenced to re-open the gangways.

LEHIGH AND WILKES-BARRE COAL COMPANY

Honey Brook Division.

No. 4 Colliery.—Turnout tunnel, from No. 4 Lift tunnel to foot of proposed Gamma Power Plane; length 185 feet.

Tunnel from Buck Mountain to Gamma, No. 1 Basin; length 71

feet.

Tunnel, Gamma to Gamma, No. 11 Slope; length 109 feet.

Installed a 10 inch by 16 inch by 18 inch Jeanesville Condenser at No. 4 pumping plant.

New breaker and new hoisting engine house completed.

500 H. P., B. and W. boilers nearly complete.

No. 5 Colliery.—New separator or dump chute at Green Mountain Slope.

Railroad cut-off three quarters of a mile long, eliminating sharp curves and heavy grades, on road to Green Mountain.

New engine and boiler houses at No. 20 Slope.

No. 20 Slope was sunk 750 feet across pitch below No. 8 tunnel level. Condition of colliery is good.

TRUMAN M. DODSON COAL COMPANY

Kaska William Colliery.—The tunnel in the Seven Foot Level of the No. 2 Shaft has been extended north to the Seven Foot Vein, on the South Dip, cutting the Seven Foot vein at a distance of 195 feet north from Shaft.

A tunnel 85 feet in length has been driven on the Orchard level No. 2 Shaft from the North to the South Dip on the Orchard vein.

A new rock plane 113 feet long on a pitch of 15 degrees has been driven south from the South Tunnel in No. 1 Slope to the Orchard vein.

A rock chute on a pitch of 35 degrees is also being driven from the West Skid gangway, No. 1 Slope, to connect with the No. 2 Slope.

No. 4 Slope.—A tunnel 7 feet by 12 feet by 85 feet long has been driven south from the Bottom Split of the Mammoth vein to the Skidmore vein, and gangways have been turned east and west.

A single track slope is being driven up on the Skidmore vein and is now a distance of 180 feet from the gangway.

The retimbering of the No. 1 Shaft has been completed.

Outside.

A pair of 30 feet by 48 inches first motor hoisting engines installed at the No. 2 Shaft. 4 return tabular boilers of 200 H. P. each has been installed, and new boiler house built over land. (42 feet by 52 feet.)

New timber plane built to hoist timber from the railroad to top of shaft.

Condition of colliery is fair.

DODSON COAL COMPANY

Morea Colliery.—No. 3 slope extended to the basin, a total depth of 365 feet.

No. 4 slope, extended to third level, a total depth of 385 feet.

A pair of 14 inches by 28 inches geared engines, with 8 feet drum was erected on the surface to sink to the basin. Engine is on concrete foundation. A 30 inch by 48 inch first motion engine, 8 feet drum, was erected on concrete foundation 150 feet west of shaft head frame, as a water hoist. A new head frame was creeted at the shaft, as the old one was not considered strong enough for the work.

A new compound duplex Jeanesville pump, 27 inches by 50 inches by 14 inches by 48 inches was installed at bottom of shaft, designed to deliver 2,500 gallons per minute to the surface. Pump is set on a concrete bed. The pump room is 27 feet by 50 feet, roofed with 15 inch I beams, set on concrete pillars and lagged with T rails, top and sides. A 13 inch column line 700 feet long, and an 8 inch steam line 1,700 feet long, were put in to serve this pump. A rock

chute, 20 yards in length was driven from the 2nd level Seven Foot gangway, west, reaching the basin of the Mammoth. The flume was completed early in the year.

250 feet of scraper line east of the breaker to stock No. 2 buck.

All dwelling houses painted.

Ventilation and drainage at this colliery have been improved during the year.

MARYD COAL COMPANY

Maryd Colliery.—Breaker 90 by 160, capacity 1,200 tons daily, complete. Breaker engines, double reversing 16 by 30.

12 inch cast iron water line 4,500 feet long laid from Little Creek

to breaker, for water for washing coal and boiler supply.

16 foot fan built on Middle-Split vein air hole at No. 1 Slope.

Town of 36 blocks completed.

4-compartment shaft, 33 by 15, sunk 197 feet, total of 514 feet. 1st level tunnel on Orchard vein.

No. 1 Slope on Bottom-split on Mammoth sunk 250 feet, total of 1.000 feet.

Tunnel in No. 1 Drift from Primrose, north 303 feet, total of 432 feet, cutting Buttom-split of Mammoth.

First level of No. 1 Slope tunnel 7 by 10 by 125, cutting Topsplit of Mammoth.

Second level tunnel 7 by 10 by 150, cutting Middle-split of Mam-

A slope is being sunk on the Diamond vein, South Dip, No. 2 Basin.

Segara's old Primrose slope is being pumped out.

Condition of colliery is fair.

Mine Foremen's Examinations

The annual examination for mine foremen and assistant mine foremen was held in the Court House, Pottsville, April 26 and 27. The Board was composed of the following members:

John Curran, Mine Inspector, Pottsville; James Tinley, Superintendent, Tamaqua; Nicholas Murrey, Cumbola; John W. Richards,

New Philadelphia.

The following named persons were recommended for certificates:

Mine Foremen

William Moses, Buck Mountain; Maurice Friel, New Boston; John Bowen, Seek; Reese Williams, Tamaqua; John T. Davis, Lansford; Ulysses Adams, Kaska.

Assistant Mine Foremen

John J. Cantwell, Eagle Hill; Cornelius Dougherty, Tuscarora; Charles Shore, Audenried; James Boyle, Kaska; Thomas McLaughlin, Patterson; James Derby, Tamaqua.



Fourteenth District

NORTHUMBERLAND COUNTY

Mt. Carmel, Pa., February 22, 1906.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my third annual report as Inspector of Mines for the Fourteenth Anthracite District, for the year ending December 31, 1905.

Respectfully submitted,

BENJAMIN I. EVANS, Inspector.

SUMMARY OF STATISTICS

| Number of collieries, | 24 |
|--|-----------|
| Number of mines, | 55 |
| Number of mines in operation, | 54 |
| Number of tons of coal shipped to market, | 4,194,138 |
| Number of tons used at mines for steam and heat, | 593,635 |
| Number of tons sold to local trade and used by employes, | 107,924 |
| Number of tons produced, | 4,895,697 |
| Number of persons employed inside of mines, | 9,823 |
| Number of persons employed outside, | 5,385 |
| Number of fatal accidents inside of mines, | 42 |
| Number of fatal accidents outside, | 7 |
| Number of non-fatal accidents inside of mines, | 33 |
| Number of non-fatal accidents outside, | 4 |
| Number of tons of coal produced per fatal accident inside, | 116,564 |
| Number of persons employed per fatal accident inside, | 234 |
| Number of persons employed per fatal accident outside | 769 |
| Number of persons employed per non-fatal accident inside, | 297 |
| Number of persons employed per non-fatal accident out- | |
| side,: | 1,346 |
| Number of wives made widows, | 28 |
| Number of children orphaned, | 45 |
| Number of steam locomotives used outside, | 29 |
| Number of compressed air locomotives used inside, | 3 |
| Number of electric motors used inside, | 5 |
| Number of fans in use, | 54 |
| Number of gaseous mines in operation, | 26 |
| Number of non-gaseous mines in operation, | 28 |
| Number of new mines opened, | 2 |

TABLE A

PRODUCTION OF COAL

| Names of Operators | Tons |
|---|-----------------------|
| Philadelphia and Reading Coal and Iron Company, | 2,405,803 |
| Susquehanna Coal Company, | 1,027,596 |
| Mineral Railroad and Mining Company, | 583,909 |
| Excelsior Coal Company, | 228,418 |
| Shipman Koal Company, | 160,838 |
| Greenough Red Ash Coal Company, | 119,471 |
| Lehigh Valley Coal Company, | 97,668 |
| Enterprise Coal Company, | 71,859 |
| Llewellyn Mining Company, | 69,631 |
| White and White, | 26,109 |
| Buck Ridge Coal Company, | 104,395 |
| Total, | 4,895,697 |
| | |
| Production by Counties | |
| Northumberland, | 4,895,697 |

TABLE B.-Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

| - ALSEL | ,- · | .6 | ايد |
|--|---|--|----------------------------------|
| Number of employes outside per non-fatal accident | | 291 192 | 1,346 |
| əpis | Number of employes in | 458 165 496 337 123 247 73 | 297 |
| •bita: | Number of employes out | 679 153 291 96 40 | 692 |
| əpis | Number of employes in per fatal arcident | 286 257 135 123 247 267 35 | 234 |
| 9 | Total number of employee | 6, 3, 3, 6, 6, 72, 6, 668 7, 9, 668 7, 72, 72, 72, 72, 72, 72, 72, 72, 72, 7 | 15,208 |
| əbi | Number of employes outs | 2,139 1,358 603 185 218 153 192 104 40 | 5,385 |
| əj | Number of employes insid | 4,581 2,310 1,489 357 123 247 267 106 146 | 9,823 |
| per | Tons of coal produced finalds | 240, 580 173, 339 194, 636 228, 418 100, 838 119, 471 71, 859 34, 815 | 148,354 |
| per | Tons of coal produced | 150,362 114,177 53,082 160,838 119,471 97,668 23,953 | 116,564 |
| lents | Total | 090000000000000000000000000000000000000 | 37 |
| 1 Accid | əbisinO | 67 | 4 |
| Non-fatal Accidents | əpisuI | 0770000 | 33 |
| | Total | 2 H H H H H H H H H H H H H H H H H H H | 49 |
| Accidents | əbistuO | 01 H=01 H | t- |
| Fatal | əpisuI | 91 1110 | 42 |
| | Names of Operators | Philadelphia and Reading Coal and Iron Co Susqueisime Coal Co Mineral Italinad and Minhig Co Excession Full Co Shipman Koal Co Greenough Red Ash Coal Co Lebith Valley Coal Co Enterprise Coal Co Enterprise Coal Co Enterprise Coal Co Enterprise Coal Co Buck Ridge Coal Co Buck Ridge Coal Co Buck Ridge Coal Co Buck Ridge Coal Co Miscellaneous companies. | Totals and averages for district |

TABLE C .- Classification of Fatal Accidents Inside and Outside of Mines

| | | | | | | | M | nth | s | | | | | |
|--|---------|----------|-------|-------|-----|-------|------|--------|-----------|-----------------|----------|----------|------------------|--|
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Falls of coal, Falls of slate, Falls of roof, Mine cars, Explosions of gas and dust, Suffocation by gas, etc., Falling into slopes, etc., Miscellaneous, | 1 | | 1 | | 1 | 1 1 1 | 1 | 2 1 | 1 1 1 | 2 3 1 | 1 1 | 2 4 1 | 5 9 7 7 5 1 6 2 | 11.90 21.43 16.67 16.67 11.90 2.38 14.29 4.76 |
| Totals, | 3== | 1 | 3 | 3== | 3 | 3 | == | 4 | 3 | 6 | 3 | 10 | 42 | 100 |
| Causes of Accidents Outside Cars. Machinery, Suffocation in chutes, etc., Miscellaneous, | | 2 | | 1 | | 1 | | | | i | 1 | | 1 2 2 2 | 14.29 28.57 28.57 28.57 |
| Totals, | | 2 | | 2 | | 1 | | • | | 1 | 1 | | 7 | 100 |
| Grand totals inside and outside, | 3 | 3 | 3 | 5 | 3 | 4 | 1 | 4 | 3 | 7 | 4 | 10 | 49 | |

TABLE D.-Classification of Non-fatal Accidents Inside and Outside of Mines

| | | | | | | | M | onth | s | | | | | |
|---|---------|----------|-------|-------|-----|------|--------------------|--------|-----------|---------|----------|-------------|--|--|
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Falls of coal, Falls of slate, Falls of roof, Mine cars, Explosions of gas and dust, Explosions of powder and dynamite, Premature blasts, Falling into slopes, etc., Miscellaneous, | | 1 | i | | 1 | | ····· ···· 1 | 1 | 1 1 | 3 | 1 1 1 2 | 3 1 2 | 2 11 1 7 4 1 4 1 2 | 6.06 33.34 3.03 21.21 12.12 3.03 12.12 3.03 6.06 |
| Totals, | == | 2 | 2 | 1== | 2== | | 4== | 1 | 3 | 5== | | | 33 | 100 |
| Causes of Accidents Outside Cars, Machinery, Miscellaneous, | | 1 | | | | | | | | | 1 | 1 | 1 1 2 | 25.00 25.00 50.00 |
| Totals, | | 1 | 1 | | | | | | | | 1 | 1 | 4 | 100 |
| Grand totals inside and outside, | | 3 | 3 | 1 | 2 | 2 | 4 | 1 | 3 | 5 | 6 | 7 | 37 | |

 $\begin{array}{c} {\bf TABLE~E.-Occupations~of~Persons~Killed~or~Fatally~Injured~Inside~and~Outside} \\ {\bf of~Mines} \end{array} . \\$

| • • | | | | | | M | onth | ıs | | | | | |
|--|--------------|----------|-------|---------|-----|-------|------|--------|-----------|----------------------|----------|----------------------------------|----------------------------------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Inside Miners, laborers, Miners' laborers, Drivers and runners, Doorboys and helpers, Company men, All other employes, Totals, | | | 3 | 1 1 1 3 | 3 | 2 | | 3 | 1 1 3 | 4 1 1 6 | 3 | 5 2 1 1 1 1 10 | 28 4 3 2 2 2 3 |
| Outside Blacksmiths and carpenters, Slatepickers (boys), All other employes, Totals, | === | | | 1 | == | i | : | =- !- | | 1 | 1 | == | ==== 2 1 4 |
| Grand totals inside and outside | 3 | 3 | 3 | 5 | 3 | 4 | | 4 | 3 | 7 | 4 | 10 | -19 |

TABLE F.-Occupations of Persons Injured Inside and Outside of Mines

| Inside | | | | | | | M | onth | ns | | | | | |
|-------------------------------------|--|---------|----------|-------|-------|-----|------------|------|--------|-----------|---------|----------|-------------|-------------------|
| Fire bosses and assistants, | | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Outside Blacksmiths and carpenters. | Fire hosses and assistants, Miners, Drivers and runners, Doorboys and helpers, | | 1 1 | 2 | | 1 | 1 1 | 4 | i | 2 1 | 1 | 4 1 | 5 1 | 1 24 7 1 |
| Totals, | Outside Blacksmiths and carpenters, All other employes, | == | 1 | = = · | == | | | == | | | | == | == 1 | 1 3 |

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

| | | | | | | М | onth | ıs | | | | | |
|---|---------|--------------|-------|-------|-----|------|------|--------|-----------|-----------------|----------|----------|--------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| American, Welsh, Irish, German, Polish, Italian, Slavonian, Lithuanian, Austrian, | 1 | 1 1 1 | 2 | 3 | 1 | 2 | | 1 | 1 | 2 1 2 | 1 | 3 | 1 |
| Totals, | 3 | 3 | 3 | 5, | 3 | 4 | | 4 | 3 | 7 | 4 | 10 | 4 |

TABLE H.-Nationality of Persons Injured Inside and Outside of Mines

| | | | | | | М | onth | ns | | | | | |
|------------------------|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|------------------|----------|---|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Irish, German, Polish, | | 3 | 1 | 1 | 1 | 1 1 | 3 | 1 | 2 | 3 1 1 1 | 1 1 1 1 | 1 3 | 14 1 2 11 1 2 3 1 2 |
| Totals, | | 3 | 3 | 1 | 2 | 2 | 4 | 1 | 3 | 5 | 6 | 7 | 37 |

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each person per minute

| world trap tot | | | | - | | | | | . 1 | 1 |
|--|--|--|---|---|--|-------------------|------------------------|---|--|---|
| Average number of cubic feet per minute provided for each person | 252 | 235 | 230 | 373 | 305 | 228 | 316 | 499 | 296 | 276 |
| Number of persons em- ployed inside | 740 | 523 | 344 | \$ 641 | 324 | 309 | 393 | \$ 260 | 531 | 989 |
| Number of cubic feet per animute passing out at | 97,650 | 88,170 | 54.000 | 126,700 | 42,160 | 33,740 | 124,780 93,240 | 51, 300 46,000 | 60, 670 48, 140 49, 000 | 41,400 60,000 53,220 43,110 |
| Total quantity of air per minute circulating in all the splits in cubic feet | 98,000 | 88,400 44,070 | 53,000 56,000 | 125, 170 | 43,000 | 33,170 | 124,000 93,180 | 50,700 45,000 | 47,176 49,540 | 39,410 57,670 51,670 40,500 |
| of 1991 sides of cubic feet of a rismir part of the fill fill of the fill of t | 100,000 | 89,800 45,800 | 55,000 | 128,170 | 45,000 | 35,070 | 125, 470 95, 900 | 47,000 82,000 847,000 | 61,400 49,000 51,510 | 42, 280 61, 770 55, 110 44, 355 |
| Number of splits of air | 4 | 1007 | 41 41 6 | 3010 | 99- | 4 00 FE | r- r∪ c | 4440 | 00034 | 1 4000 |
| Power used | _ | | | | | Steam,. | | | | Steam,. |
| Name of fan | Guibal | Peerless, | Guibal | Guibal, | Calibal, | Guibal, | | Guibal, | Guibal, | Vulcan, |
| Water gauge developed—in inches | 7. | | | | | . H | 1277 | -0.10. | 2.1.2 | ∞ ⊕ ⊗ ⊕ |
| Number of revolutions per minute | - 08 | 325 | 9123 | 15. 15. | 28.2 | 1 0 E | 201 | 668 | 18218 | 102 |
| Depth of blades in feet | 6.3 | | | | | | 6.9 | | , , , , , , | 3.5 |
| Width of blades in feet | [- | 4.10 8.0 | 9.09 | di di d | - t - ~ | | 6.10 | 250 | 50.00 60.00 | 00 44 00 00 10 10 10 00 |
| Diameter of fan in feet | 67 | 172 | 2129 | 2213 | 727 | 122 | 222 | 22.22 | 18222 | 45 85 85 81 81 82 81 |
| Method of ventilation | T S T | Fan, Fan, | Fan, | Fan, | Fan, | Fan, | Fan, Fan, | Fan, Fan, | Fan, Fan, | Fan, Fan, Fan, |
| Gaseous or non-gaseous | Sea-no. | Non-gas. | Non-gas. | Gaseous, | Gaseous, | Gaseous, | Gaseous, | Gaseous, Gaseous, | Non-gas. Non-gas. Gaseous, | Gaseous, Gaseous, Gaseous, Gaseous, |
| Ening of opening | 2. 2. 2. | Shaft, | Slope, | Slope, | Shaft, | Slope, | Shaft, | Slope, | Slope, Slope, Slope, | Slope, Slope, Slope, |
| Names of Operators and Mines | Philadelphia and Reading Coal and Iron Co. | Alaska No. 1, Reliance Mammoth, East, | Reliance Mammoth, West Locust Gap, East, | Locust Gap, West, Locust Spring No. 1, | Locust Spring No. 2, Henry Clay No. 1, | Henry Clay No. 2. | Bear Valley, Burnside, | Burnside, Sterling No. 1, Sterling No. 2, | Sterling No. 3, North Franklin No. 1, North Franklin No. 2, North Franklin No. 3, | Susquehana Coal Co. Pennsylvania— No. 9 Vein, N. D. No. 10 Vein, S. D. Shaft. |

| | | , | 1 | | | | 11 1 | | |
|---|--|--|------------------|--|---|--|------------------------------------|---------------------------------|-------------------|
| 360 316 220 240 | 25.2 | 313 | 307 | 242 | 383 | 558 | 222 | 1 | 002 |
| 374 374 258 266 | 925 | 190 | 123 | 247 | 211 | 106 | 146 | 100 | 26 |
| 102, 110 115, 470 25, 170 26, 240 44, 600 27, 100 55, 450 48, 300 | 75, 410 48, 670 46, 000 47, 740 61, 643 83, 070 | 60,170 17,000 15,400 | 37,000 | 30,000 | 80,740 25,770 | 59,400 | 32,176 | 38,176 | 20,470 |
| 107, 400 134, 650 25, 000 26, 000 44, 000 37, (00 37, (00 56, 760 49, 440 | 74, 560 47, 670 46, 760 45, 480 61, 000 83, 740 | 59,470 17,100 15,000 | 37,840 | 28,000 | 81,000 | 59,170 | 32, 450 | 39,400 | 21,340 |
| 103,000 116,400 25,600 26,740 45,000 38,000 37,600 56,760 49,440 | 76,580 50,540 48,110 49,500 63,214 85,643 | 61,700 18,400 16,000 | 37,840 | 30,189 | 81,000 | 60,740 | 33,400 | 39,400 | 21,340 |
| 100404004 | F-000004 | 6000 | ణ | . 000 | 02004 | 0000 | [] C3 | m | 4 |
| Steam,. | Steam,. | Steam,. | Steam, | Steam, | Steam,. | Steam, | Steam, | Steam, | Steam, |
| Vulcan, Vulcan, Vulcan, Mullen, Sturvt, Vulcan, Gulbal, Mullen, Mullen, | Guibal, | } Beadle, | Gulbal, | Mullen, | Guibal, | Guibal | Guibal, | Guibal, | Guibal, |
| 12.2.11 | 22.22.22 | 1.3 | 1.2 | 1:1 | 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 | 1.6 | 1.4 | 00 | 1.2 |
| \$5 50 115 50 80 80 80 80 80 80 80 80 80 80 80 80 80 | 728272 | 75 | 78 | 105 | 5 8 55 | 88 | 10 | 63 | 72 |
| 24.4.8.4.0 24.3.10 2.10 3.10 3.10 | 0. 40.00.00 0. 0. 0. | 010101 | 4 | & 4. ∞ | 10 10 10 - | 10.10 | 9 | 4.2 | LS. |
| 5.8444441010 ciorcio 6 10 | 33.11 66.11 | 10 10 10 | . LO | 3.11 | 4.6 | 65 4. 10 10 | L- | 00 | 60 60 |
| 18. 19.4 10. 12. 12. 12. 12. 12. 12. 12. 13. 14. | 188 188 188 188 188 | 21 16 14 | 16 | 12 | 16 18 | 14 | 18 | 12 | 14 |
| Fan, Fan, Fan, Fan, Fan, Fan, | Fan, Fan, Fan, Fan, Fan, | Fan, Fan, Fan, | Fan, | Fan, | Fan, Fan, | Fan, | Fan, | Fan, | Fan, |
| Gaseous, Gaseous, Non-gas. Non-gas. Non-gas. Non-gas. Non-gas. Gaseous, | Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, | Non-gas. Non-gas. Non-gas. | Non-gas. | Non-gas. Non-gas. | Non-gas. Non-gas. Non-gas. | Non-gas. Non-gas. | Non-gas. | Non-gas. | Gaseous, |
| Slope Slope Slope Slope Slope Slope Slope | Slope, Slope, Slope, Slope, Shaft, | Slope, | Shaft, | Shaft, | Slope, | Slope, | Slope, | Slope, | Slope, |
| Richards, N. D., Richards, S. D., Richards, No. 4. Richards No. 5. Hickory Ridge No. 5. Hickory Ridge No. 7. Hickory Ridge No. 7. Hickory Ridge No. 7. Hickory Swamp. | Mineral Rallroad and Mining Co. Cameron No. 7. Cameron No. 9. Cameron No. 1. N. D. Lake Fidler No. 1. Luke Fidler No. 2. | Excelsior Coal Co. Excelsior, Corbin No. 1. Corbin No. 2, | Shipman Koal Co. | Greenough Red Ash Coal Co. Greenough No. 1, Greenough No. 2, | Lehigh Valley Coal Co. Sloux No. 1, Sloux No. 3, Mount Carmel, | Enterprise Coal Co. Enterprise No. 1. | Llewellyn Mining Co. Royal Oak, | White and White Columbus No. 2, | Buck Ridge No. 2, |

TABLE 1.-Operators, location of collieries, railroads, etc.

| Railroad to Mine | P. and R. | Pennsylvania | Pennsylvania Pennsylvania | P. and R. P. and R. | Pennsylvania | Pennsylvania | P. and R. | Lehigh Valley |
|-----------------------------------|--|--|---|-------------------------------------|-------------------|----------------------------|---------------------|--|
| Post Office | Pottsville, | Shamokin, | Shamokin, | Shamokin, | Shamokin, | | | Centralia, |
| Name of Superin- tendent | Reese Tasker, | W. R. Reinhardt, | E. A. Rhoads, | A. D. Robertson, Geo. W. Robertson, | Edward Corliss, | | <u>A</u> | J. M. Humphreys,. |
| Post Office | Pottsville, | Wilkes-Barre, | Wilkes-Barre, | Pottsville, | Detroit, Mich., | Shamokin, | Scranton, | Wilkes-Barre, |
| Name of General Superintendent | W. J. Richards, | Northumberland Robert A. Quin, | Robert A. Quin, | Andrew Robertson, Andrew Robertson, | John B. Corliss, | Edward Brennan, | W. L. Connell, | S. D. Warriner, |
| County | Northumberland, . | Northumberland,. | Northumberland | Northumberland,. | Northumberland,. | Northumberland | Northumber and,. | Northumberland |
| Names of Operators and Collieries | Philadelphia and Reading Coal and Iron Co. North Franklin, Bear Valley, Burnside, Sterling, Henry Clay, Bug Mountain, Locust Gap, Locust Spring, Alaska, Reliance, Merriam, | Susquehanna Coal Co. Pennsylvatta. Richards. Hickory Rdige. Hickory Swamp. | Mineral Railroad and Mining Co. Cameron, Luke Fidler, | Excelsior Coal Co. Corbin, | Shipman Koal ('0. | Greenough Red Ash Coal Co. | Enterprise Coal Co. | Stoux Lehigh Valley Coal Co. Mount Carmel. |

| P. and R. | Lehigh Valley | P. and R. P. and R. |
|--|--|---|
| P. and R. | Mt. Carmel, | Minersville, |
| | Alfred White, | D. H. McGee, |
| Shamokin, | Mount Carmel, | Phillipsburg, Phillipsburg, |
| Northumberland, William Liewellyn, Shamokin, | Northumberland., Elijah White, Mount Carmel, Alfred White, Mt. Carmel, Lehigh Valley | Northumberland., George Scott,, Phillipsburg,, D. H. McGee,, Minersville,, P. and R. Parlingsburg,, D. H. McGee,, Minersville,, P. and R. |
| Northumberland,. | Northumberland,. | Northumberland,. |
| Llewellyn Mining Co. | White and White Columbus No. 2, | Buck Ridge Coal Co. Buck Ridge No. 2, Buck Ridge washery, |

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder and dynamite used etc.

| | Name of Operators and Collierles | Philadelphia and Reading Coal and Iron Co. North Franklin, Bear Valley, Sterling, Henry Clay, Big Mountain, Locust Gap, Locust Spring, Reliance, Reliance, Meriann, | Totals, Richards, Pennsylvania, Hickory Ridge, Hickory Nage, Scott, | Totals, | Mineral Railroad and Mining Co. Luke Fidler, | 1 Otals, |
|-----------------|--|---|--|-----------|--|----------|
| nity of I | County | Northumberland | Northumberland | | Northumberland, | |
| powder and | Number of tons of coal shipped | 3355 2228 2334 2328 2228 2228 | 2, 104, 797 286, 523 266, 494 159, 654 95, 931 40, 403 | 849,005 | 287,474 | 490, 587 |
| d dynamite used | Number of tons used at collieries | | 54, 600 38, 584 47, 320 21, 112 6, 120 | 167,736 | | 69), 095 |
| te used, | Number of tons sold to local trade and used by employes | | 6, 115 6, 425 3,501 730 84 | 10,855 | | 33, 227 |
| erc. | Total production of coal in tons | 343, 246, 246, 390, 44, 44, 111, | 2, 405, 803 341, 238 311, 503 210, 475 117, 773 46, 607 | 1,027,596 | 339, 996 | 583,909 |
| | Number of days worked (Totals are averages, not including washeries) | 276 259 268 269 269 254 265 275 | 266 224 224 232 1195 82 | 193 | 222 224 | 223 |
| | Number of employes | 813 628 884 884 884 884 548 371 1,060 1,029 | 6,720 1,155 1,000 659 419 435 | 3,668 | | 2,092 |
| - | Number of fatal accidents Number of non-fatal accidents | | 1 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 11 | | |
| | Number of kegs of powder used | 2 7,381 1 8,466 1 1 2,111 1 1,376 1 1 3,176 1 1,976 1 1,6,836 3 7,562 | 10 64,963 8,237 11,295 2 4,195 2 1,393 2 990 | 16 26,910 | | 3 15,840 |
| | Number of pounds of dynamite | 28,439 29,715 29,717 29,719 17,848 10,877 89,119 80,193 81,948 | 88, 364 28, 882 11, 010 5 108 | 171,086 | | 47,615 |
| | Number of horses and mules | 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 | 8641 1111 233 212 212 | 327 | 143 | 222 |

| 33 | 9 | 3 | 37 | 13 | 30 | ======================================= | ==== | 9 | 6 | 1 | 1,456 |
|---------------------------------------|---------|---------------------------|----------------------------|------------------------------|---------|---|----------------|------------------|------------------|------------------|-------------|
| 2,015 | 4. 425 | 7 595 | 7,500 | 13, 089 10, 858 2, 557 | 26,504 | 3,278 | 7775 | 1,000 | 2,900 | | 594,935 |
| 3,884 | 7.622 | 1.600 | 2,705 | 1,463 | 1,463 | 1,463 | 1,745 | 1.300 | 443 | | 116,054 |
| H | | | - | | - | 63 | 62 | | | | 37 |
| | | - | 2 | HH | 2 | 5 | | | | - | 49 |
| 293 | 542 | 341 | 400 | 366 47 145 | 558 | 298 | 250 | 136 | 163 | 40 | 15,208 |
| 263 | 264 | ===== | 178 | 110 | 81 | 192 | 257 | 156 | 32 | 241 | 193 |
| 113,532 | 228,418 | 160,838 | 119, 471 | 59,017 35,713 2,938 | 97,668 | 71,859 | 69,631 | 26,109 | 6,020 | 98,375 | 4,895,697 |
| 387 | 387 | 2, 584 | 805 | 373 | 744 | 172 | 6,607 | 8,600 | 50 | 225 | 107,924 |
| 7,593 | 20,929 | 10,162 | 5,600 | 11,877 20,982 2,938 | 35,797 | 19,218 | 7,300 | 3.000 | 1,200 | 4,960 | 593, 635 |
| 105,552 101,559 | 207,102 | 147,792 | 113,066 | 46,767 | 61, 127 | 52,469 | 55,724 | 14,509 | 4,770 | 93, 190 | 4, 194, 138 |
| Northumberland,. | | Northumberland,. | Northumberland,. | Northumberland { | | Northumberland | Northumberland | Northumberland,. | Northumberland,. | Northumberland,. | |
| Excelsior, Excelsior Coal Co. Corbin, | Totals, | Colbert, Shipman Koal Co. | Greenough Red Ash Coal Co. | y coal co. | Lotals, | | ning Co. | | oal Co. | Carana totals | |

TABLE 2.—Recapitulation

TABLE 2.—PART 2.

| | 2122 0202 02 2222 | | |
|-------------------|---|---|---------|
| | Number of air compressors | ∞ ro co : : : : : : : : : : : : : : : : : : | Z . |
| | Number of electric dynamos | 0 = = 0 | 9 |
| s ber | Quantity delivered to surface minute—gallons | 33,945 5,000 4,738 4,738 850 1,500 100 | 49,615 |
| 931 | Capacity in gallons per minu | 36.845 15,725 1,068 1,068 1,250 3,274 3,274 3,00 | 71,335 |
| Saire | Number of pumps delive | 94 H L S S H S A H L L | 96 |
| | Total horse power | 23, 410 9, 658 6, 216 5, 216 6, 536 6, 95 6, 95 1, 389 1, | 48,682 |
| lis lo | Number of steam engines classes | 160 177 177 177 177 177 177 177 177 177 17 | 421 |
| ives | Electric | 61 | 10 |
| Locomotives | Ti A | 60 | 65 |
| Lo | Steam | φ. Η | 62 |
| | Total horse power | 16,620 8,540 4,355 1,180 600 3,995 1,900 1,900 1,000 | 39, 495 |
| 30ilers | Horse power | 15, 420 8, 540 4, 315 645 645 1, 900 450 1, 050 | 36, 255 |
| Number of Boilers | Tubular | 102 68 17 17 6 6 4 4 4 16 16 17 | 240 |
| Numb | Horse power | 1,200 1,180 720 | 3,240 |
| | Cylindrical | 40 38 38 20 4 | 104 |
| | County | Northumberland | |
| | Names of Operators | Philadelphia and Reading Coal and Iron Co Susquelanna Coal (Co Mineral Rallroad and Mining Co., Excelsior Coal (O Shipman Koal Vo., Greenough Red Ash (Vo., Greenough Red Ash (Vo., Ehitgh Valley Coal (O., Ehitgh Valley Coal (O., Ehreuprise (Val (O., Ehr | Totals, |

TABLE 3.—Number of each class of employes inside and outside of mines

| | 1 | 68400H400H9 | 01 | 1 1000010 | 00 |
|---------|-----------------------------------|---|---------|--|---------|
| | Grand total inside and outside | 8828 8828 8848 871 1,060 1,060 1,029 | 6,720 | 1, 155 1,000 1,000 659 419 435 | 3,668 |
| | Total outside | 222 2422 2422 2602 2002 31 | 2,139 | 369 314 285 161 229 | 1,358 |
| | All other employes | 1889 1668 1888 1888 1888 1888 1888 1888 | 1,167 | 135 135 99 99 | 545 |
| | Вооккееретѕ апа светка | 000000000000000000000000000000000000000 | 133 | 10.6.6.4.10 | 26 |
| side | Slate pickers (men) | 1188 1188 114 10 10 9 | 73 | 12 12 10 10 10 | E |
| Outside | Slate pickers (boys) | 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 547 | 112 95 127 58 74 | 466 |
| | Engineers and firemen | 1183388 16 16 18 18 18 18 18 18 18 18 18 18 18 18 18 | 240 | 113851 | 물 |
| | Blacksmiths and carpenters | 80 48 : E0 8 | F1 | | 103 |
| | Богетел | H0101H01H :01H01H | 15 | | 10 |
| | Superintendents | | | -:::: | - |
| | abizni latoT | 25.50 | 4,581 | 786 686 874 258 206 | 2,310 |
| | All other employes | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | F1.1 | 208 155 87 81 | 592 |
| | Сотралу теп | 8648918798668 864887-488-68-64 | 424 | | |
| | Pumpmen | ে গেগেৰে কৰ্তকৰ | 35 | 141 | 37 |
| de | Door poys and helpers | 47-517-07-6-318-0 | 102 | 10 10 4 | 44 |
| Inside | signing and runners | 88244212442 | 296 | 6 19 19 6 | 142 |
| | Miners' laborers | 888 8 4 119 888 8 4 119 | 260 | 110 137 70 39 40 | 396 |
| | Miners | 220 210 262 284 284 284 284 284 284 284 | 2,130 | 366 312 180 121 70 | 1,049 |
| | Fire bosses and assistants | 4000000000000 | 44 | 51800 | 30 |
| | Assistant mine foremen | | 7 | क ज क स्त्र स | 14 |
| | Mine foremen | | 12 | 01 | 9 |
| | County | Northumberland | | Northumberland { | |
| | Names of Operators and Collieries | Philadelphia and Reading Coal and Iron Co. North Prenklin. Bear Valley, Sterling, Big Mountah Locust Gap, Alaska, Alaska, Alaska, Relianne, Merilane, | Totals, | Susquehanna Coal Co. Richards. Pennsylvania. Hickory Ridge. Hickory Rwamp. | Totals, |

TABLE 3.-Continued

| | | 293 | 2 | 293 | 542 | | 400 | 366 47 145 | 00 |
|---------|-----------------------------------|---|---------|----------------------------------|---------|------------------|---------------------------------------|-----------------------------|---------|
| | Grand total inside and outside | 1,29 | 2,092 | 882 | 54 | 341 | 40 | 38 | 558 |
| | Total outside | 368 | 603 | 103 | 185 | 218 | 153 | 1822 104 | 291 |
| | All other employes | 139 | 231 | 40 | 85 | 91 | 355 | 96 12 71 | 179 |
| | Bookkeepers and clerks | 99 | 12 | 63 | 2 | 2 | 60 | 01-0 | 2 |
| side | Slate pickers (men) | 9 | 9 | 610 | 14 | 41 | c1 | | |
| Outside | Flate pickers (boys) | 168 | 255 | 23 | 51 | 61 | 93 | 29 | 239 |
| | Engineers and firemen | 300 | 62 | 121 | 16 | 15 | 10 | 13 | 46 |
| | Blacksmiths and carpenters | 821 | 32 | 0.4 | 13 | 9 | 00 | 18 | 30 |
| | Foremen | 21 | 60 | | 62 | - | - | | 67 |
| | Superintendents | 11 | 01 | | 2 | - | - | | 1: |
| | Potal inside | 925 | 1,489 | 190 | 357 | 123 | 247 | 211 15 41 | 267 |
| | All other employes | 261 | 408 | 66 | 18 | 6 | 5 | 50 6 411 | 97 |
| | Company men | | | 18 | 35 | 21 | 24 | | |
| | Битртеп | ∞ ∺ | 6 | 1 | | 69 | 63 | 4.0 | 10 |
| 3e | Door poys and helpers | 212 | 29 | 1 | - | - | 65 | eo : | 60 |
| Inside | Drivers and runners | 69 | 109 | 14 | 26 | 10 | 36 | 10 | 11 |
| | Miners' laborers | 108 | 226 | 63 | 100 | 26 | 35 | 08 | 30 |
| | steniM | 437 | 919 | \$1 89 | 170 | 49 | 137 | 106 | 106 |
| | Fire bosses and assistants | # 00 | 81 | :: | : | 60 | C3 | ro : : | 10 |
| | Assistant mine foremen | ବର | 000 | 61 61 | 4 | | 100 | 62 = : | 63 |
| | Mine foremen | | c1 | ii | 63 | - | - | == : | 02 |
| | County | Northumberland, | | Northumberland, | | Northumberland,. | Northumberland,. | Northumberland | |
| | Names of Operators and Collieries | Mineral Railroad and Mining Cameron, Luke Fidler, | Totals, | Excelsior Coal Co. Excelsior, | Totals, | Shipman Koal Co. | Greenough Red Ash Coal Co. Greenough, | Sloux, Mount (armel, Sayre, | Totals, |

| 298 | 0 0 0 | (A) | 136 | 163 | 40 | 15,208 |
|---------------------|----------------------|-----------------|------------------|-------------------|---------------------|---------------------------|
| | 100 | 104 | | | 40 | |
| - 111 | | 10 | 14 | 1 44 66 | 30 | 80 2,586 5,385 |
| 21 | | | 1 | - | - | 12,5 |
| | | 4 | | | - | |
| | 0 | 1 | : | | | 226 |
| 75 | | li | | Ξ | 2 | 11 85 284 575 1,588 |
| 51 | | 9 | | 1.0 | 4 | 515 |
| 50 | 1.5 | 1 | - j | 6.0 | | 5. 1.2. |
| | | 1 | - | 944 | 1 | 63 |
| 106 1 | ii | i ji | - | 1 | - | 11 |
| | 143 | | 100 1 | 26 | | 188 100 :73 1,934 9,823 |
| 39 | - | | 30 | | | 1,934 |
| 39 | 16 | | 61 | 12 | | 573 |
| | 6 | | : | 1 | | 100 |
| | - 4 | 1 | | 1 | | 188 |
| _ | 23 | | | 63 | | 099 |
| 13 | - 66 | | 10 10 | 14 | | 1,632 |
| 4 | 1 55 | | 45 | 19 | | 559 1 |
| | 61 | 11 ' | 01 | - | : | 111 14, |
| : | .j - | li | : 11 | | ij | 36 |
| ¢1 | | 1 | - | | | 30 |
| Northumberland,. | Northumberland | : | Northumberland,. | Northumberland,. | Northumberland, | |
| Enterprise Coal Co. | Llewellyn Mining Co. | White and White | Columbus No. 2, | Buck Ridge No. 2, | Buck Ridge washery, | Grand totals, |

TABLE 3.—Recapitulation

| 6. 720 | 3,668 | 2,186 | 15, 208 |
|---|---|---|------------------------|
| i | 8558 | 185 | 1,385 |
| 23 1,167 2,139 | 547 1 | 558 1, | 2.586 5. |
| 23 1. | 126 | 17.5 | 80 |
| | 11 | 14 | 955 |
| 247 | 1555 | 269 | |
| | | | 5 1.588 |
| 15 74 240 | 3 141 | 3 16 116 | 11 35 244 575 |
| 101 101 141 | 3 | | 181 |
| - 1 | | - 1010 | 60 |
| : | H 01 | 61.00 | 1 |
| 774 4,581 | 5 2 2,310 408 1,489 | 357 | 9,823 |
| 24 774 | | 18 357 | 100 573 1.934 9,823 |
| 424 | | 114 | 513 |
| 35 | 33 | 18 | 100 |
| 102 | 23 | 121 | 158 100 |
| 296 | 142 | SS | 36 111 4,559 1,632 660 |
| 260 | 396 | 150 | 1,632 |
| 44 2, 130 | 1,049 676 | 170 | 4,5559 |
| 7 | 881 | 12 | 111 |
| *7 | 20 | 4 9 | 3.6 |
| 15 | 60 | c1 00 | 30 |
| | Northumberland { | | |
| Philadelphia and Reading Coal) and Iron ('o., | Susquebanna Coal Co., | Excelsior Coal Co., Miscellaneous companies, | Totals, |

TABLE 3.-PART 2.

| | Total | 25.9 26.8 26.8 | 269 | 254 | 265 | 195 195 88 82 88 88 88 88 88 88 88 88 88 88 88 88 8 | 252 | 243 243 286 | 286 | 17.5 | 110 |
|----------------------------------|-----------------------------------|--|------------------|-------------|-------------------|---|---|---|------------------|----------------------------|--|
| | December | 22 25 22 25 22 25 22 25 2 | 20 | 25 | 61 51 61 24 | 10 | 19 | 22 | 23 * | 5 - 20 | |
| | November | 23 23 23 23 | 22 | 21 | 25.24 | 20 17 17 18 18 17 | 18 | 22 83 | 25 | | |
| | October | 22.22.22.22.22.22.22.22.22.22.22.22.22. | 11 | જ | 22.22 | 18 18 18 18 18 18 18 18 18 18 18 18 18 1 | 12 12 | # 8188 | 2.07 | | |
| sreaker | September | 888 | 23 | 19 | 88 | 11 11 11 11 11 11 11 11 11 11 11 11 11 | 12 | | 8 | | |
| Number of Days Worked in Breaker | August | 95853 | 255 | 65 | 25. | 88568 | 8131 | 12.13 | 24 | 17 | |
| s Work | July | 20 139 | 19 | 17 | 19 | ESET | 17. | 25.02 | 50 | 50 | |
| of Day | əunr | 22 22 23 | 20 | 19 | 88 | 8888 | 15 23 | # ## ## ## ## ## ## ## ## ## ## ## ## # | 18 | 23 | <u>∞</u> |
| Number | May | 92 22 23 | 255 | 60.3 | 88 | 8482 | 485 | 456 | 56 | 33 | 8 |
| I | IliqA | 2222 | 22 | 21 | 221 | 19 19 18 18 | 119 | 1000 | 61 | 67 | 21 |
| | March | 27 18 26 | 56 | 25 | 19 | 16 13 12 12 12 | 21 61 | 988 | 17.2 | 53 | 1 2 2 |
| | February | 15 16 15 | 17 | 19 | 21 | 14 13 10 10 | 12 14 | 15 | 62 | 67 | 10 10 |
| | January | 22.23 | ÷1 | 60 | 61 69 61 61 | 19 16 15 15 | 17 | 22 | 25 | 21. | 18 |
| | County | | Northumberland { | | | Northumberland | Northumberland, | Northumberland, | Northumberland | Northumberland,. | Northumberland |
| | Names of Operators and Collieries | Philadelphia and Reading Coal and Iron Co. North Franklin, Bear Valley, Burnside, | Henry Clay, | Louist Cap. | Alaska, Reliance, | Richards, Susquehanna Coal Co. Pennsylvanta, Hickory Ridge, Hickory Ridge, Seatt, | Mineral Railroad and Mining Co. Cameron, Luke Fidler, | Excelsior, Corbin, | Shipman Keal Co. | Greenough Red Ash Coal Co. | Sloux, Lehigh Valley Coal Co. Mount Carmel, |

| 192 | | 257 | 11 | 156 | 11 | 32 | |
|---------------------|----------------------|------------------|-----------------|-----------------|---------------------|-----------------|-----|
| 19 | | 22 | | 16 | | 20 | |
| 14 | | 20 | | 18 : | | 12 | |
| 15 | | 22 | | 19 | | : | |
| 17 13 15 | | 21 | | 12 | | | |
| 17 | | 13 | | 6 | | | |
| 18 | | 25 | | 6 | | _: | - |
| 24 | | 19 | | 11 | | | - |
| . 56 | | 25 | 11 | 9 | | | |
| | | 24 | | 11 | | : | - 1 |
| 14 | | - 20 | | 16 15 14 | | | |
| 10 | | 16 | | 15 | | | - |
| | | 22 | | 16 | | : | |
| Northumberland, | | Northumberland,. | | Northumberland, | | Northumberland, | |
| Enterprise Coal Co. | Llewellyn Mining Co. | Royal Oak, | White and White | Columbus No. 2, | Buck Ridge Coal Co. | | |

TABLE 4.-Fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Killed instantly. He went to work under | to bar down and it fell on him. Killed by ears, While running a loaded out out to be constituted by the constitution of the beautiful to the constitution of the beautiful to the constitution of the beautiful to the constitution of the beautiful to the constitution of the beautiful to the constitution of the constitution of the beautiful to the constitution of the | between the car and a car standing on the main gangway. Fatally ininged by fell of slote Died | While log | stock coal a rush came and smothered him. Outside. Killed by rush of coal. While washing dirt into a trough with a line of base | a rush came and smothered him. Outside. Killed by fall of slate. While cutting out | a prop a proce of state that the prop was bolding up fell on him. Killed by fall of state at face of gangway. Killed by falling down a breast manway. Killed by fall of state in chute. Killed by fall of state in chute. Killed by falling through breaster. While hammering on a choic he wiscond. | | suddenly and caught him between the crank and roal. Outside and shaft in the reage and shaft in the reage and shaft enges a future of the cage a nut on the cage at bottom of shaft when the cage started away and caught him. |
|---------------------------------------|---|--|--|--------------|--|--|---|--------------------------------|--|
| County | | | | | | | Northumberland | | |
| Name of Mine | Greenough, | Hickory Ridge, | Burnside, | Enterprise, | Richards, | Locust Spring | Richards, Richards, Enterprise, Scott, | Hickory Swamp,. Enterprise, | Enterprise, |
| Number of orphans | 9 | : | : | П | : | | : : : | | 4 |
| zwobiw lo redmuX | | : | - | - | | - | | - | |
| Married or single | M. | υż | M. | M. | M. | M. | W.K.K.W | Z is | M. |
| 93Y | 20 | 19 | 65 | <u>co</u> | 10 | 4. | 130 | 25 24 | 20 |
| noitsquest | Miner, | Driver, | Miner, | Laborer, | Laborer, | Miner, | Miner, Miner, Miner, Carpenter, | Miner. Laborer, | Footman, |
| Zationality | Polish, | American, | American, | Russian, | Austrian, | American | Polfsh Polish Russian | American, | Polish, |
| Name of Person | Wally Slavinski, | William Herb | Mark Redman, | John Celela, | Andrew Peso, | Mike McGuire, | Anthony Welcome, Mike Condencavitch, Mike Topolski, Joseph Gartner, | Themas Powell | Jacob Racefski, |
| Date of accident, | Jan. 4 | ro. | 98 | O) | 13 | 61 | March 1 99 April 3 | 10 | គ |

| Killed by being run over by locomotive | and trip of loaded cars. Killed by fall of top coal. Killed by fall of rock. Killed by fall of rock. Killed by falling into scraper line. Out- | side. Killed by falling down an empty breast. Killed by being run over by a mine car. Killed by fall of coal. Squeezed between car and prop. Died on | August 7 and | the stope of gangway. Killed by fall of rock in face of gangway. Killed by fall of rock at face of breast. Killed by falling down breast manway. Killed by falling down empty breast. Killed by falling down suppy. | Fatally injured, While putting up a gauge way collaron the legs the platform broke and the collar fell on him. Died the same night. Killed by fall of coal at face of breast. | Killed by explosion of gas. He entered an old breast with a naked light on his head. Leg broken and otherwise injured by fall | of slate, Died December 29. Killed by being run over by a locomotive. Cutside. | | Rilled by being caught between car and high side of rib. Killed by fall of top ceal. Instantly killed. He tried to jump between the cars and fell under them. |
|--|--|--|--|--|--|--|--|--|---|
| - | | | | Northumberland | | | | Northumberland, | Northumberland |
| Alaska, | Locust : pring, Burnside Alaska, Greenough, | Richards, Alaska, Hickory Ridge, Cameron, | Cameron, Alaska, Locust Spring, Enterprise, Sterling, | Bear Valley, Luke Fidler, Cameron, Richards, Locust Spring, | ٠. | Pennsylvania, | Buck Ridge No. 1 | Locust Spring, | Calbert. |
| <u>:</u> | 63 | : 4 | 67 | eo eo | | | : | 1 m : : ; | |
| - | : | : | | | | | | · - i i i i i | |
| <u>oi</u> | WWEE | SERE | ZwZwZw | KN KKN K | | | vi > | | Z Z Z |
| 1. | 12 4 4 5 5 6 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 4.2° + 8° + 8° + 8° + 8° + 8° + 8° + 8° + | 2000822 | 888488 | | | 15 | | 36 |
| Doorboy, | Miner, Miner, Miner, Slatepicker, | Miner, Repairman, Miner, | Miner, Miner, Miner, Miner, Laborer, Stable boss, | Miner, Laborer, Miner, Miner, Machinist, | Miner, | Miner, Miner, | Message boy, | Miner, Miner, Laborer, Laborer, Driver, | Miner, 45 Winer, 46 Doorboy, 17 |
| Polish, | Irish, American, Russian, | Polish, Polish, American, | Russian, Russian, Austrian, Polish, | Polish Polish American., Slavonian., American., German, | Welsh, | Italian, American, | American, | 1 | Aussian, Polish, |
| James Faleski, | John Coniff, James Mowrey, Lewis Waskonis, Raymond Burke, | Frank Damanski Charles Gurich, John Billman, | Paul Gripp. Nicholas Popo, Charles Wangin, Sicero Tamanin, Frank Ragorski, William Kellerman, | August Leeofski, Frank Male George Wagner, Anthony Ondo, George Mutthewson, | John J. Jenkirs Bartley Uchinski, | Tizi Bellfonti, | William Motlavitch | John Schnader, Josen Mazeski Benjamin Grego, Frank Mattis, Joseph Grobeck, | Frank Volincavage. Henry Saunders. |
| 25. | 213 | 23032 | 28 28 28 28 28 28 28 28 28 28 28 28 28 2 | 24.00119 | 13 51 | 15 | 18 c | 4.65.65.6 | E 238 |
| March | May | Aug. | Sept. | Oct. | Nov. | | John | | |

В

TABLE 5.-Non-fatal accidents inside and outside of mines

| | Nature and Cause of Accident in Brief | Leg broken. While working at face of | breast a piece of slate fell on his leg. Leg broken by being bumped between | cars, Leg broken. While unloading machinery | a shaft fell on his leg. Outside. Burned by gas. He entered a chute with | a naked light on his head. Leg broken. While dressing a shot a | TP | engine and dumper he fell under the dumper and broke his leg. Outside. Injured internally. While trying to extinguish his legan, which was effect to | was caught between the car and chute. Skull fractured. While crossing the top | or cracte on a plant for firsted and stell head first down the chute. Injured internally. He was trying to county control of the chute. | between the side hooks. Injured internally. While bringing a trip of loaded cars out the mule spreader | eaught in a frog catching the driver between mule and wagon; not only skull fractured by fall of rock off the rib while milling off old alone in an emotive. | breast, Arm broken, While trying to bar down | a piece of coal a piece of slate fell on his arm. Back and head seriously injured by fall | of slate. Injured about the head by a slot, which blew through from another breast. |
|---|---------------------------------------|--------------------------------------|--|--|--|--|--------------------|--|---|---|---|--|--|--|---|
| outside of mines | County | | | | | | | | Northumberland { | | _ | | | | |
| TOTAL TACAT ACCIDENTS INSIDE AND OUTSIDE OF MIMES | Name of Mine | Henry Clay, | Burnside, | Pennsylvania, | Colbert, | Greenough, | Mount Carmel, | Richards, | Locust Spring, | Royal Oak, | Richards, | Richards, | Hickory Ridge, | Big Mountain, | Reliance, |
| 1000 | Married or single | Ä | υż | × | M. | υż | M. | υż | M. | và | M. | M. | M. | M. | Ħ. |
| rai | Age | 49 | 18 | 45 | . 37 | 44 | 40 | 20 | 7 | 18 | 26 | 40 | 27 | 88 | 35 |
| 0. TAOH-10 | Occupation | Miner, | Driver, | Carpenter, | Miner, | Miner, | Laborer, | Driver, | Miner | Spragger, | Driver, | Miner, | Miner, | Miner, | Miner, |
| | Vationality | American, | American, | American, | Polish, | American, | Russian, | American, | American, | Pollsh, | American, | Irish, | Italian, | Polish, | Polish, |
| | Name of Person | Morris Wetzel | Ralph Henninger | H. M. Romberger, | March 15 Joseph Toberchefski, | William Clave, | Theo. Mulchulskie, | John Meredith, | John Lowrey. | John Wertness | Wally Heavey, | Charles Conaghan Irish, | John Teory, | Andrew Socha, | Frank Condraski, |
| | 'huanioan io am | 16 | 123 | 13 | h 15 | 16 | 16 | 17 | 16 | 17 | 19 | 90 01 | 14 | I.S | ដ |
| | Date of acoldent. | Feb. | | | Marc | | | April | May | | June | | July | | |

| Ribs fractured by a piece of slate falling | on him. Leg broken by a shot. He had been tam- | a place of safety in time. Rhbs broken. While barring down a piece of slate he slipped under it as it was | falling. Injured internally. After opening the door he went to high side of gangway and was caught between the cars and | high side. Foot broken. A piece of coal rolled down a chute and caught his foot against a | prop. Injured about the kidneys. A plece of | state fell on his back. Badly squeezed . While walking alongside of the trip be was caught between the | frame of door and car. Knee-cap broken by fall of slate. Burned by powder. A spark from his | land Leg broken by a piece of slate falling on | Leg broken and burned by gas in a breast that he entered with a naked light on | his head. Leg broken. He shortened the squib and shot went off before he reached a place | of safety. Sprained his back by falling a distance of twenty-five feet in the breaker. | Outside. Head, body and leg injured by premature | Diast. Log booken by fall of top coal. Foot crushed between car and rib. Leg broken by fall of slate at face of | breach, broken by fall of slate. Leg broken by fall of slate. Burned by explosion of gas. Burned by explosion of gas. Thigh broken by falling under a trip of | Cars. Leg broken. The team ran away and threw him under the wagon. Outside. |
|--|---|---|---|--|---|--|---|--|--|---|---|---|---|---|---|
| | | | | | | | | Northumberland | | | | | | | |
| = | : | | : | : | : | : | :: | | : | : | : | | | ::::: | |
| North Franklin, | . 4 | | | : | North Franklin, | | Reliance, | Hickory Swamp, | Bear Valley, | : | Scott, | Luke Fidler, | Hickory Swamp, Pennsylvania, Corbin, | Royal Oak, Hickory Ridge, Luke Fidler, Luke Fidler, Enterprise, | Enterprise, |
| rank | s No. | | | | Fran | s, | , · | SA | alley, | Pennsylvania, | | 'idler | Swa | Dak, Rid idler, idler, ise, | ise, |
| rth F | Richards | Reliance, | Richards, | Richards, | rth | Richards, | iane tt, . | kory | ar Ve | nnsyl | tt, . | ke F | kory nnsyl | Royal Oak, Hickory Rid Luke Fidler Luke Fidler Enterprise, | terpr |
| No | | | | | °Z | Ric | | | | | _ | | | | |
| M. | M. | Z. | vi - | Ĭ. | ν. ·- | vi | Zi vi | M | M. | M | vi _ | M. | Z iv iv | NEEKE | M. |
| 18 | . 45 | . 43 | . 17 | | . 25 | . 20 | . 56 | . 27 | . 47 | 32 | . 58 | . 28 | 34 | 288889 | 20 |
| Ī | | | | Miner, | : | | Fire boss,,. | | | | ist, | : | | | Driver, |
| | er, | Miner, | Doorboy, | ier, | Miner, | Driver, | e bi | Miner, | Miner, | Miner, | Machinist, | Miner, | Miner, Driver, Miner, | Miner, Miner, Miner, Miner, Driver, | ver, |
| Miner, | Miner, | Min | | | Mir | Dri | | Mir | | | | | | | |
| | | : | | American, | : | : | American, | : | | | | : | Italian, Hungarian, Polish, | Polish, Russian, Lithuanian, Lithuanian, Polish, | Gетап, |
| | | | | n, . | : | | й. | | | | | ian, | an, | ian, | |
| sh, | | American, | Austrian, | erica | German, | American, | erica sh, | American, | American, | Polish, | American, | Lithuanian, | Italian, Hungari Polish, | sh, sian nuan nuan sh, | man |
| Polish, | Polish, | Am | Aus | Amo | Ger | Ame | Am | Am | Am | Poli | Am | Litt | | | Ger |
| : | : | | | : | : | | | : | | | | : | | Andrew Shestl, George Kotchmerick, William Grinavitch, Anthony Wabbe | |
| | | | | | | | | : | : | : | | | | rick tch. | |
| | ofsk | | rane | : | 1 | an. | sner. | loyd, | ary, | 0.'K. | | nsin | ant, ski, | estl. | aupt |
| Hes | enzer |)elan | Da | erby | Pau | Nol | Gless | W L | We | Sel | nters | y Bl | Bell | Kote Kote Gri | n Hi |
| 24 Walter Hesler, | John Benzerofski, | Mike Delaney, | Richard Daranetti, | John Zerby, | Charles Paul, | Martin Nolan, | Jacob Glessner, Philip Pribes, | Matthew Lloyd, | Charles Weary, | Andrew Selock | Joe Winters. | Anthony Blusius, | Charles Auton. George Bellant, Stany Lipinski, | Androw Shestl, George Kotchmerick, William Grinavitch, Anthony Wabbe, Lewis Mattis, | William Haup |
| W.a | Joh | _ | Rfc | Joh | Cha | Ma | Jac | Ma | Che | An | Joe | An | Sta Sta | Ger Wij | 17.1 |
| 24 | 28 | 1- | t→ | 7. | 63 | 9. | 1-12-1 | 2.5 | 31 | Ç1 | 9 | 11 | 1-13- | 18 E E E E E E | Š, |
| July | Aug. | Sept. | | | Oct. | | | | Nov. | | | | Dec. | | |
| | 4 | | | | 0 | | | | 64 | | | | — | | |

FATAL ACCIDENTS

Falls of Coal, Slate and Roof.

January 1.—Wally Slavinski, miner, was instantly killed by a fall of slate. He had been trying to bar down a piece of slate and failed. Instead of blasting it down, or propping it, he went to work under it again, when it fell on him.

January 3.—Mark Rodman, miner, was injured so severely by a fall of slate in a breast that he died three days after. He had neglected to timber his working place.

February 4.—John Celela, laborer, outside, was instantly killed. While loading stock coal, the top of which was frozen and undermined, it rushed on him.

February 12.—Andrew Peso, laborer, outside, was smothered by a rush of coal. He was washing the coal into a trough with a line of hose and went too close to the bank; and when it rushed he failed to get out of the way.

February 8.—Mike McGuire, an old practical miner, was instantly killed by a fall of slate. He was in the act of cutting a prop down from under a piece of slate when it fell on him. He should have blasted the prop out, as the mine law directs.

March 10.—Anthony Welcome, miner, was instantly killed by a fall of slate. He had neglected to timber his gangway as he had been directed to do by the foreman.

March 27.—Mike Topolski, miner, was instantly killed by a fall of slate in a chute. He had neglected to timber his chute, and while drilling a hole at the face, the slate fell on him.

April 10.—Thomas Powell, miner, was killed by a fall of slate. He had fired a shot which displaced a prop, and while cleaning out the prop hole to replace the prop the slate fell on him.

May 9.—John Coniff, miner, was instantly killed. After firing a shot in the breast, he went back to the face and sat down without making an examination, when a piece of top coal fell on him.

May 11.—James Mowrey, miner, was instantly killed by fall of top rock, while putting up a prop.

May 13.—Lewis Waskonis, miner, was killed by fall of rock while putting up a set of timber at face of breast.

June 30.—John Billman, miner, was killed by fall of coal. After firing a hole in the bottom coal he returned to his working place, and a piece of coal fell on him.

August 26.—Nicholas Popo, miner, killed by fall of rock. After firing a shot off the pillar that he was skipping, he went back to examine the place, and while drilling another hole a piece of rock which extended five feet over the pillar fell on him and his partner, killing both of them.

August 26.—Charles Wangin, miner, killed with Nicholas Popo. September 2. Cicero Tamanini, miner, was instantly killed. While working at face of gangway a piece of rock fell on him. He had neglected to timber his gangway close enough to the face.

September 18.—Frank Bagorski, laborer, was instantly killed. He fired a shot which displaced a prop and while making room to reset the prop a piece of clod fell on him. This was a case of neglect on the part of the miner.

October 2.—August Lecofski, miner, was killed by a fall of rock. He had neglected to timber his gangway close enough to the face.

October 4.—Frank Male, miner, was killed by a fall of rock. After firing a shot at face of breast he went back to examine his place, and while so doing a piece of rock fell on him.

November 13.—Bartley Uchinski, miner, was killed by fall of top coal while going back to face of breast to fire the second hole.

November 17.—William Kramer, miner, leg broken and otherwise injured by a fall of slate in the gangway. He died December 20. He had neglected to timber his working place.

December 4.—John Schnader, miner, was killed by fall of top coal while in the act of starting coal in a chute in the Mammoth

seam.

December 16.—Adam Osavage, miner, was killed by fall of slate off the pillar which he was skipping.

December 22.—Frank Volincavage, miner, was instantly killed while mining under a slip of coal. The accident could have been avoided if he had used-a drill instead of a pick.

Explosions of Gas.

November 15.—Tizi Bellfonti, miner, was killed by an explosion of gas. He had been warned by the fire boss that there was gas in the inside breast, and that he should not go in to his work until he (the fire boss) returned, but he disregarded the orders.

December 2.—William Motlavitch, miner, was smothered by an outburst of gas. He was driving up a chute when this occurred, and

could not retreat fast enough.

December 13.—Joseph Mazeski, Benjamin Grego, Frank Mattis, Joseph Grobeck were so severely burned by an explosion of gas that they died a few days later. The explosion was caused through an outburst of gas from a breast, under a great pressure, which drove it to the gangway on top of the men and in some unaccountable manner the gas was ignited. All men at this colliery worked with locked safety lamps. Later on some eigarette paper and tobacco were found on the gangway, and it is supposed that one of the men was in the act of lighting a eigarette at the time.

Cars.

January 5.—William Herb, driver, was killed. While in the act of removing a car out of a breast to main gangway, another driver ran his car out of another breast at the same time and ran into the first car, striking Herb.

April 25.—James Faleski, door boy, was killed. The supposition is that this boy was sleeping at his door when the engine and trip ran into the door and struck him as he was in the act of opening it.

June 30.—Charles Gurich, repairman, was killed by being run over by an empty car at bottom of slant. The driver had taken up two empty cars on the slant. The first car got off the track at a branch. The driver unhitched his mule and got two miners to help him put the car on, which they did, and the cars ran away down the slant. The driver should have spragged his last car before proceed-

ing to put the other car on. By so doing this accident would have been avoided.

August 22.—William T. Shoppy, driver, was killed. While riding on front end of trip a sudden jerk threw him down, and he was caugh between cars and high side of gangway.

September 23.—William Kellerman, stable boss, was killed. While riding up the slope it is supposed that he had an attack of heart failure, to which he was a subject, and fell off the cars, which passed over him.

December 16.—Mike Shuck, loader, was killed. While sleeping on high side of gangway in the dark, he was caught between a loaded trip and rib, and his skull was crushed.

December 28.—Henry Saunders, door boy, was instantly killed. While trying to jump between the cars he fell under them, the trip passing over him.

Falling into Shafts, Slopes and Manways.

March 9.—Mike Condracavitch, miner, was killed by falling down a breast manway. He was retreating from a shot when he missed his foothold and fell a distance of 150 feet on a pitch of 78 degrees.

April 3.—Joseph Gartner, carpenter, outside, was killed. He was working at the erecting of the Scott breaker, and while hammering on the end of a shaft he missed his blow and fell head first to the ground, a distance of 90 feet.

June 24.—Frank Damanski, miner, was robbing pillars and had built a battery across the breast 200 feet up from the gangway on a pitch of 76 degrees; while working on this battery one of the props, which he had not given heading enough, fell through and he went with it to the bottom of the breast.

August 23.—Paul Gripp, miner, was killed by falling down breast manway. While retreating from a shot he missed his foothold and fell down the breast manway, a distance of 250 feet, pitch of 70 degrees.

October 6.—George Wagner, miner, was killed by falling down a breast manway. His partner stated that he was hurrying down the manway in front of him, when he missed his foothold and fell a distance of 120 feet, pitch 70 degrees.

October 9.—Anthony Ondo, miner, was robbing pillars and had built a battery across the breast 200 feet up from the gangway on a pitch of 76 degrees. While working on this battery one of the props, which he had not given heading enough, fell through and he went with it to the bottom of the breast.

October 11.—George Matthewson, machinist helper, was killed by falling down slope. The front end of the gunboat jumped the track and he got off on the slope and missed his foothold, falling to the bottom.

October 26.—George Kosunbander, carpenter, was killed. While trying to get a stick out from under a pile, the top part of the pile rolled on him.

October 27.—John J. Jenkins, miner, was killed by gangway collar falling on him. He and his laborer were putting up a gangway collar on the legs, when a frail platform which he had built broke and precipitated him to the floor of the gangway, and the collar fell on him.

Machinery.

April 19.—John Herbert, laborer, was instantly killed. While tightening a nut on the eccentric of the air compressor the engine suddenly started and caught him between the crank and side rod. The cause of the sudden start of the engine was a defective steam valve, causing the steam to leak into the cylinder. Outside.

April 21.—Jacob Racofski, footman, was killed. While tightening a nut on the cage at the bottom of shaft the engineer suddenly started to hoist and caught this man between the cage and timber.

The engineer claimed that he had a signal to hoist.

June 23.—Raymond Burke, slatepicker, was killed by falling into scraper line. He had been walking around the breaker, away from his work, and in some unaccountable manner he fell into the machinery, which was fenced in according to law. Outside.

November 25.—Willard Rosser, messenger, was killed by being run over by a locomotive. He was trying to cross the track in front of

the engine when he was run down.

CONDITION OF COLLIERIES AND IMPROVEMENTS

PHILADELPHIA AND READING COAL AND IRON COMPANY

Locust Spring, West.—Sanitary condition of colliery is good. No improvements worth noting.

Locust Gap, West.—Sanitary condition of colliery is good.

Locust Gap, East.—This colliery was set on fire May 5, 1904, and five lives were lost. I am very glad to say that after a siege of about eighteen months, the fire has been conquered and put out. The slopes that were slushed have been opened to second level, where the fire originated, and are timbered and cleaned up preparatory to resuming operations.

Locust Spring Shaft.—Sanitary condition of colliery is good. Road

beds in good condition. No improvements worth noting.

Reliance Colliery.—Ventilation and drainage are fairly good. Road beds are kept in good condition.

Alaska Colliery.—Drainage is good, but the ventilation could be

improved. No improvement worth noting.

Bear Valley.—Sanitary condition of colliery is good. Road beds are kept in good condition.

Henry Clay.—Sanitary condition of colliery is good. Road beds

are well kept.

North Franklin.—Sanitary condition of colliery is good. Road beds are up to the standard.

Big Mountain Colliery.—Sanitary condition of colliery is fairly good.

Burnside.—Sanitary condition of colliery is fairly good.

Sterling.—Sanitary condition of colliery is good.

SUSQUEHANNA COAL COMPANY

Richards.—Sanitary condition of colliery is fairly good. No improvements worth noting.

Pennsylvania.—One 18-foot fan and a concrete fan house have been erected; also one set return tabular boilers installed. Sanitary condition of colliery inside is good, and the road beds are well kept.

Hickory Ridge.—Sanitary condition of colliery is fairly good. Road beds are kept in fair condition.

Hickory Swamp.—Sanitary condition of colliery is fairly good.

Scott.—This colliery started operations on August 1. There are two shafts; one shaft with four compartments for hoisting coal; the other shaft with two compartments for hoisting water. The seams that are being mined are the Buck Mountain seam, and the two members of the Mammoth, or No. 8 and 9 seams.

MINERAL RAILROAD AND MINING COMPANY

Cameron.—Sanitary condition of colliery is fairly good. Road beds are kept in fair condition.

Luke Fidler.—Sanitary condition of colliery is fairly good. Road beds are in good condition.

EXCELSIOR COAL COMPANY

Excelsior.—Sanitary conditions are good, and the roads well kept. Very few improvements have been made at this colliery.

Corbin.—Ventilation and drainage are good. Road beds are well kept.

SHIPMAN KOAL COMPANY

Colbert.—Sanitary condition of colliery is fairly good.

GREENOUGH RED ASH COAL COMPANY

Greenough Colliery.—There has been an electric plant installed at this colliery for haulage purposes and lighting up the breaker. A cement block building has been erected 25 x 30 for the engine and dynamo. Size of engine 16 x 16, and 168 horse power dynamo, 100 kilowatts. A new breaker has also been erected, the old one having been burned down last August. The sanitary condition of the colliery inside is good.

ENTERPRISE COAL COMPANY

Enterprise.—Sanitary condition of colliery is good.

LLEWELLYN MINING COMPANY

Royal Oak.—Sanitary condition of colliery is fairly good in some parts; in other parts it could be improved. The road beds are poorly kept.

LEHIGH VALLEY COAL COMPANY

Sioux Colliery.—Sanitary condition of colliery is fair.

Mount Carmel Collicry.—Ventilation and drainage of colliery are fair.

WHITE AND WHITE

Columbus No. 2.—Sanitary condition of colliery is fairly good.

Mine Foremen's Examinations

The following candidates were recommended for certificates of qualification:

Mine Foremen

William F. Quinn, George Davies, John Crawford.

Assistant Mine Foremen

Thomas Allen, William McHale, George Schnee, Michael McHale, George Deitrich, John O'Neil, J. E. Jefferson, John Sauler, Elmer Wolfgang, Samuel Schoffstall, James Foley, Peter Bonowitz, Robert John, John Berger, William Aubrey, Harrison Haslop, Stewart Madara, William J. Davies, William Reese, Michael Manning, Patrick Quigley, Jonathan Butts, A. B. Straussen, Goodwin Howard, Oliver Tasker, M. J. Burke, William Ruffing, Patrick Boyle, Harry Willard, Michael Carroll, A. B. Carroll, John Madara, Patrick Buggie, Frank Zerambo, Thomas Neary, William R. Spatz, Thomas Johnson, Thomas Davies, John Powell, Lemuel Williams, John Smith.



Fifteenth District

COLUMBIA AND DAUPHIN COUNTIES

Centralia, Pa., February 17, 1906.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith the annual report of the Fifteenth Anthracite District for the year ending December 31, 1905.

Statistics regarding production, employes, condition of collieries, etc., are given in accordance with the requirements of the law.

Respectfully submitted,

JAMES A. O'DONNELL, Inspector.

SUMMARY OF STATISTICS

| Number of collieries, | 5 |
|---|----------------|
| Number of mines, | 20 |
| Number of mines in operation, | 19 |
| Number of tons of coal shipped to market, | 1,452,871 |
| Number of tons used at mines for steam and heat, | $253,\!395$ |
| Number of tons sold to local trade and used by employes, | 37,326 |
| Number of tons produced, | 1,743,592 |
| Number of persons employed inside of mines, | 2,917 |
| Number of persons employed outside, | 1,618 |
| Number of fatal accidents inside of mines, | 12 |
| Number of non-fatal accidents inside of mines, | $\frac{21}{a}$ |
| Number of non-fatal accidents outside, | 6 |
| Number of tons of coal produced per fatal accident inside, Number of persons employed per fatal accident inside, | 145,299 |
| Number of persons employed per non-fatal accident inside, | 243 139 |
| Number of persons employed per non-fatal accident out- | 1.09 |
| side, | 270 |
| Number of wives made widows, | 6 |
| Number of children orphaned, | 15 |
| Number of steam locomotives used inside of mines, | 1 |
| Number of steam locomotives used outside, | 19 |
| Number of electric motors used inside, | 5 |
| Number of fans in use, | 19 |
| Number of gaseous mines in operation, | 19 |
| | |

TABLE A

PRODUCTION OF COAL

| Names of Operators | Tons |
|---|--|
| Midvalley Coal Company, Lykens Valley Coal Company, Philadelphia and Reading Coal and Iron Company, Lehigh Valley Coal Company, Summit Branch Mining Company, | $\begin{array}{c} 423,702 \\ 358,556 \\ 358,235 \\ 316,007 \\ 287,092 \end{array}$ |
| Total, | 1,743,592 |
| Production by Counties | |
| Columbia, | $1,097,944 \\ 645,648$ |
| Total, | 1,743,592 |

of TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number persons employed per accident

| Fatal | Names of Operators | Midvalley Coal Co. Lykens Valley Coal Co. Philadelphia and Reading Coal and Iron Co. Leftigh Valley Coal Co. Sammit Paranch Mining Co. Miscellaneous companies. | Totals and averages for district, 12 |
|---------------------|--|--|--------------------------------------|
| Fatal Accidents | obisido IstoT | E- 60 44 53 61 | 12 |
| Non-Fata | əpisuI | H 00 03 00 03 | . 21 |
| Non-Fatal Accidents | ebisidO ———————————————————————————————————— | 22 10 20 20 20 20 20 20 20 20 20 20 20 20 20 | 6 27 |
| per | Tons of coal produced fatal accident inside | 423, 702 1119, 518 89, 559 158, 604 143, 546 | 145,299 |
| -uou | Tons of coal produced per Tons of the Tons | 423, 702 44, 819 179, 118 39, 501 142, 546 | 83,028 |
| əį | Number of employes inside | 6 48 893 427 486 457 | 2,917 |
| | Number of employes outs | 222 343 306 260 77 13 | 1,618 4,535 |
| əpisu | Total number of employed Number of employed ber fatal accident | 870 648 236 298 733 107 746 243 931 229 | 35 243 |
| ebisti | | | |
| əpisu | Number of employes i per non-fatal accident | 648 112 214 61 229 | 139 |
| əbisti | Number of employes ou per non-fatal accident | 222 172 130 474 | 270 |

TABLE C.-Classification of Fatal Accidents Inside and Outside of Mines

| | | | | | | | М | onth | 8 | | | | | |
|--|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|---------------------------------|---|
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Falls of coal. Falls of roof, Mine cars, Explosions of gas and dust, Explosions of powder and dynamite, Falling into slopes, etc., Crushed at batteries, Totals, | 2 | 1 | 1 | 1 | | 1 | | | | | | | 1 2 3 1 1 3 1 | 8.33 16.67 25.00 8.34 8.33 25.00 8.33 |
| Grand totals inside and outside, | 2 | 2 | 1 | 1 | | 2 | 1 | 1 | 1 | | | 1 | 12 | |

TABLE D.-Classification of Non-fatal Accidents Inside and Outside of Mines

| | [| | | | | | M | onth | s | | | | | |
|--|---------|----------|-------|-------|-------|------|-----------------------|------------------------|-----------------|---------|----------|----------|--|---|
| Causes of Accidents Inside | January | February | March | April | May | June | July | August | September | October | November | December | Totals | Percentages |
| Falls of coal, Falls of roof, Mine cars, Explosions of powder and dynamite, Fremature blasts, Falling into slopes, etc. Crushed at batterles, Miscellaneous, Totals, | | | | 1 | 1 | 2 | 1 1 2 == | 2 1 6 ==- | 1 1 1 | | | 1 | 4 4 4 1 3 1 3 1 21 | 19.05 19.05 19.05 4.76 14.29 4.76 14.28 4.76 |
| Causes of Accidents Outside Cars, Machinery, Miscellaneous, Totals, Grand totals inside and outside, | | | | 1 | 1 1 3 | | 1 1 2 4 | 6 | 3 | | 1 1 | 1 | 3 1 2 6 27 | 50.00 16.67 33.33 |

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|---|------------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|----------------------------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Inside Fire bosses and assistants, Miners, Miners' laborers, Doorboys and helpers, Company men, All other employes, | 1 1 | 1 | 1 | 1 | | 1 | 1 | i | 1 | | | 1 | 1 2 4 2 1 2 |
| Totals, | 2 2 | 2 2 | 1 | 1 | | 2 | 1 1 | 1 1 | 1 1 | | | 1 | 12 12 |

TABLE F .- Occupations of Persons Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|---|---------|----------|-------|-------|---------------------------------|------|----------------------------------|-----------------------------|-----------|---------|-------------|----------|--------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| Inside Miners, laborers, Miners' laborers, Drivers and runners, All other employes, Totals, Outside All other employes, Totals, Grand totals inside and outside, | 1 1 1 | 2 | 2 | 1 | 1 1 1 1 1 1 3 | 2 | 1 2 2 2 -2 -4 | 5 1 6 6 | 1 3 | | 1 1 1 | 1 1 1 2 | 2 |

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|---|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|--------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| American, Scotch, rish, Jerman, Polish, | 2 | 1 1 | 1 | 1 | | 1 | 1 | i i | 1 | | | 1 | |
| Totals, | | | 1 | 1 | | 2 | 1 | 1 | 1 | | | 1 | _ |

TABLE H.-Nationality of Persons Injured Inside and Outside of Mines

| | Months | | | | | | | | | | | | |
|------------|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|--------|
| | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
| American, | | 2 | 1 | 1 | 2 | 2 | 3 | 2 | | | 1 | 1 | |
| English, | | | | | | , | | 1 | | | | 1 | |
| rish, | | | | | i | | | 1 | 1 | | | | |
| erman, | | | | | | | | 1 | | | | | |
| olish, | | | , 1 | | | | | 1 | - | | | | |
| lungarian, | | | | | | | 1 | | | | | | |
| alian, | T | | | | | | | | | | | | |
| lavenian, | | | | | | | | | | | | 1 | |
| | | | | | | | | | | | | | |

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, number of persons employed inside, and quantity of air produced for each person per minute

| Average number of cubic feet per minute provided for each person | 242 | <u>12</u> 80 | 435 | 264 | 385 |
|--|--|---|---|---|---|
| Number of persons employed | 648 | 8893 | 427 | 984 | 457 |
| Number of cubic feet per finite passing out at outlet | 164,000 | 200,000 | 194,000 | 184,000 | 183,000 |
| Total quantity to a sir per off lin ni nationaling in all the feet siring a siring sir | 157,000 | 195,000 | 186,000 | 177,000 | 176,000 |
| Number of cubic feet of air per minute entering the minute at inlet | 160,000 | 198,000 | 190,000 | 180,000 | 180,000 |
| Number of splits of air cur- | 15 | 14 | 12 | 16 | 14 |
| Power used | Steam, | Steam, | Steam, | Steam, | Steam, |
| Name of fan | Vulcan, | Gulbal, | Whiting, | Gulbal, | Gulbal, |
| Water gauge developed-in Inches | 21% | 67 | 103 | %3% | 23% |
| Number of revolutions per minute | 88 | 120 | 120 | 100 | 110 |
| Depth of blades in feet | 2 | 2 | 41/2 | 5.10 | L* |
| Width of blades in feet | 00 | 00 | 9 | 8.9 | ∞ |
| Diameter of fan in feet | . 52 | 255 | 100 | 20 | 20 |
| Method of ventilation | } 2 fans, | 3 fans, | } 4 fans, | {5 fans, | } fans, |
| Gaseous or non-gaseous | Gaseous, Gaseous, | Gaseous, Gaseous, Gaseous, Gaseous, Gaseous, | Gasecus,. | Gaseous, Gaseous, Gaseous, Gaseous, | Gascous, Gascous, Gascous, Cascous, Gascous, Gascous, |
| Elind of opening | Slope, Drift, | Slope, Slope, Drift, Tunnel, | Slope, | Slope, Shaft, Tunnel, Slope, | Slope Slope Shaft |
| Names of Operators and Mines | Midvalley Coal Co. Midvalley No. 1, Midvalley No. 2, | Dykens Valley Coal Co. Short Mountain No. 1. Short Mountain No. 2. Short Mountain No. 1. Short Mountain No. 1. Short Mountain No. 2. Short Mountain Berr Gap. | Philadelphia and Reading Coal and Iron Co. Potts, Primrose. | Centrulia. Contrulia. Contrulia. Contrulia. Contrulia control | Summit Branch Mining Co. Williamstown, 18g Link, |

TABLE 1.—Operators, location of collieries, railroads, etc.

| 1e | | | | | |
|-----------------------------------|---|------------------------|---|--|--|
| Railroad to Mine | Lehigh Valley | Pennsylvania | P. & R. | Lehigh Valley | Pennsylvania |
| Post Office | Wilburton, | Lykens, | Pottsville, | Centralla, | Lykens |
| Name of Super- intendent | Columbia, John S. Wentz, Philadelphia, T. E. Snyder, Wilburton, Lehigh Valley | Hood McKay, Lykens, | ng Coal and W. J. Richards, Pottsville, Reese Tasker, Pottsville, P. & R. | J. M. Humphrey, Centralla, Lehigh Valley | R. A. Quin, Wilkes-Barre, Hood McKay, Lykens |
| Post Office | Philadelphia, | Wilkes-Barre, | Pottsville, | Columbia, S. D. Warriner, Wilkes-Barre, | Wilkes-Barre, |
| Name of General Superintendent | John S. Wentz, | R. A. Quin, | W. J. Richards, | S. D. Warriner, | R. A. Quin, |
| County | Columbia, | Dauphin, | Columbia, | Columbia, | Dauphin, |
| Names of Operators and Collieries | Midvalley, | Lykens Valley Coal Co. | Philadelphia and Reading Coal and Iron ('0. | Lehigh Valley Coal Co. Centralia, Locust Run, | Summit Branch Mining Co. Williamstown, |

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder and dynamite used, etc.

| Number of horses and mules | 125 | 153 | 28 | 79 | 90 | 525 |
|--|--------------------|-----------------|---|---|--------------------------|---------------|
| Number of pounds of dynamite | 90,693 | 15,235 | 96,321 | 123.630 | 42, 158 | 368,073 |
| Number of kegs of powder used | 5,176 | 3,460 | 11 | 3,953 | 2,583 | 15,183 |
| Number of non-fatal accidents | 61 | 10 | 2 | 10 | 60 | 27 |
| Number of fatal accidents | | 63 | 471 | ¢1 | 6.1 | 12 |
| Number of employes | 870 | 1,236 | 733 | 746 | 931 | 4,535 |
| Number of days worked (Totals are averages, not including washeries) | 950 | 294 | 695 | 666 | 595 | 259 |
| Total production of coal in tons | 423,702 | 358, 553 | 358, 235 | 316,007 | 287,092 | 1,743,592 |
| Number of tons sold to local trade | 2,686 | 15,329 | 6, 439 | 7,838 | 5,734 | 37,326 |
| Number of tons used at collieries for steam and heat | 17,000 | 48,331 | 46,979 | 30,458 | 110,627 | 253, 395 |
| Vumber of tons of coal shipped | 404,016 | 294, 896 | 304,817 | 277,711 | 171, 431 | 1,452,871 |
| County. | Columbia, | Dauphin, | Columbia, | Columbia, | Dauphin, | |
| Names of Operators and Collieries | Midvalley Coal Co. | Short Mountain, | Philadelphia and Reading Coal and Iron Co. Potts, | Centralia, Lehigh Valley Coal Co. Locust Run,* | Summit Branch Mining Co. | Grand totals, |

*Pumping plant.

TABLE 2.—PART 2.

| | Number of air compressors | | 44 |
|-------------------|---|---|---------|
| | | - :: : : : : : : : : : : : : : : : : : | 60 |
| | minute-gallons Number of electric dynamos | 1 1 1 | 108 |
| per | Chantity delivered to surface | 4.830 1,456 4.500 1,536 5,479 | 17.8 |
| 931 | Capacity in gallons per minu | 4,830 3,330 4,720 3,072 8,107 | 24,059 |
| ering | Number of pumps deliv | 10004-11 | 24 |
| | Total horse power | 8, 230 2, 536 8, 423 2, 700 | 17,788 |
| lis 1 | Number of steam engines o | 16 14 14 12 12 | 153 |
| ves | Electric | 01 00 | 13 |
| Locomotives | TiA | | |
| Loc | Бtелт | O.4. 0173 | 20 |
| | Total horse power | 2, 400 3, 9 0 1, 820 3, 255 8, : 0 5 | 20,350 |
| oilers | Horse power | 2, 40 3, 790 1, 826 5, 905 | 16,615 |
| Number of Boilers | Tubular | 10 20 14 17 29 | 8. |
| Numb | Horse power | 180 | 3,735 |
| | Cylindrical | 6 15 60 | 81 |
| | | | |
| | County | Columbia, Dauphin, Columbia, Columbia, Dauphin, | |
| | Names of Operators | Midvalley Coal Co. Lykens Valley Coal Co. Philadephia and Reading Coal and Iron Co. Lehigh Valley Coal Co. Summit Branch Mining Co. | Totals, |

TABLE 3.—Number of each class of employes inside and outside of mines

| ebi | Grand total inside and outs | 870 | 1,236 | 733 | 746 | 931 | 4,535 |
|---------|-----------------------------|--------------------|---|--|---|--|---------------|
| | Total outside | 222 | 343 | 306 | 260 | 474 | 1,618 |
| | All other employes | 100 | 161 | 165 | 154 | 301 | 917 |
| | Bookkeepers and clerks | 70 | 5- | 63 | 60 | 4 | 22 |
| side | Slate pickers (men) | 25 | : | 20 | | | 45 |
| Outside | Slate pickers (boys) | 20 | 7.1 | 90 | 49 | 63 | 316 |
| | Engineers and firemen | 24 | 46 | 23 | 333 | 82 | 217 |
| | Blacksmiths and carpenter: | 15 | 26 | 10 | 18 | 17 | 98 |
| | Foremen | 67 | - | 61 | es ← | 61 | 11 |
| _ | Superintendents | | 1 | : | :: | 23 | 4 |
| | Total Inside | 648 | 893 | 427 | 486 | 457 | 2,917 |
| | All other employes | 12 | 144 | 96 | 146 | 156 | 228 |
| | Сотрану теп | 09 | 152 | 105 | | 22 | 374 |
| | Lampmen Pumpmen | * | 17 | 4 | 61 63 | 19 | 48 |
| Inside | Door poys and helpers | 14 | 53 | 26 | 63 | 4 | 66 |
| II | Drivers and runners | 90 | 80 | 24 | 46 | 27 | 288 |
| | Miners' laborers | 190 | 116 | 41 | 29 | 22 | 436 |
| | Miners | 275 | 302 | 111 | 212 | 162 | 1,062 |
| | Fire bosses and assistants | 9 | 9 | 0 | 10 | 4 | 29 |
| | Assistant mine foremen | ¢: | 44 | : | H : | 4 | 11 |
| | Mine foremen | ¢1 | ₩ | 61 | ro : | 63 | 12 |
| | County | Columbia, . | Dauphin, | Columbia, | Columbia, | Dauphin, | |
| | Names of Operators and Col- | Midvalley Coal Co. | Lykens Valley Coal Co. Short Mountain, | Philadelphia and Reading Coal and Iron Co. | Lehigh Valley Coal Co. Centralla, Locust Run, | Summit Branch Mining Co. Williamstown, | Grand totals, |

TABLE 3.-PART 2.

| 0. | 22. | FIF | TEENTH . |
|----|----------------------------------|--------------------|--|
| | | Total | 250 2694 2694 2222 2622 |
| | | Decemper | 22 23 27 27 27 27 27 27 27 27 27 27 27 27 27 |
| | | November | 22 25 21 17 22 22 |
| | | Осторет | 23 26 27 28 28 29 29 |
| | sreaker | September | 222 23 23 25 25 25 25 25 25 25 25 25 25 25 25 25 |
| | ted in E | ısngny | 20 24 16 24 24 |
| | Number of Days Worked in Breaker | luly | 20 22 119 20 20 20 |
| | of Day | nue | 48883 |
| | Number | May | 22 26 24 23 |
| | | lirqA | 23 23 22 21 21 |
| | | Матсһ | 20 27 26 18 24 |
| | | February | 12 23 19 9 9 20 |
| | | January | 22 23 24 22 21 21 |
| | | County | Columbia, Dauphin, Columbia, Columbi |
| | | Names of Operators | Midvalley Coal Co. Lykens Valley Coal Co. Lykens Valley Coal Co. Lehliadelphin and Reading Coal and Iron Co. Summit Branch Mining Co. |

TABLE 4.—Fatal accidents inside and outside of mines

| Nature and Cause of Accident in Brief | Killed by falling down the slope. Fatally injured by falling down a manway. Killed by a fall of rock. Killed by an explosion of gas. Killed by an electric motor. Killed by an electric motor. Killed by an electric motor. Killed by an electric motor. Killed by a fall of rock. Killed by a fall of rock. Killed by a fall of rock. Killed by a fall of rock. Killed by a rush of coal in a batt ry. |
|---------------------------------------|--|
| County | Columbia, Columbia, Columbia, Dauphin, Dauphin, Dauphin, Columbia, |
| Name of Mine | Potts, Potts, Potts, Short Mountain, Williamstown, Williamstown, Williamstown, Potts, Centralia, Centralia, Centralia, Midvalley, Short Mountain, Potts, |
| Number of orphans | 00 to 10 10 10 10 10 10 10 10 10 10 10 10 10 |
| Swobi'n lo redmuX | |
| Married or single | - EWEWEEWWW |
| 934 | 35 22 24 4 2 3 2 3 3 8 8 2 3 3 3 3 3 3 3 3 3 3 3 3 |
| Occupation | Laborer 19 Miner 30 Laborer 52 Laborer 24 Door tender 74 Starter 15 Laborer 15 Laborer 15 Laborer 18 |
| Zationality | American, American, American, Scotch, American, Irish, American, Irish, American, American, American, American, American, American, |
| Name of Person | John Rissinger. Jose Rinochl. Jose Rinochl. Teacher Graham. Gustavus Martin. John Reily. John Reily. James Carr. Waller Jadassky. Waller Jadassky. John Windisham. Anthony Reilly. |
| Date of accident | 128 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| Date of accident | Jan. Feb. March April June July Aug. Sept. Dec. |

TABLE 5.-Non-fatal accidents inside and outside of mines

| lef | ber | een | noi | pe- | g × | y. at- | in | pe- | lm. | ast. |
|---------------------|--------------|--------------------------------------|--|--|---|---|---|---|---|--|
| Accident in Brief | a timber | betwe | oal. ck. rock. | ught | red by | batter in a b | ught | ught | on h | . 3.5 |
| dent | | mped | of real. | ing ca | ractu | ng a coal i | ng ca | ng ca | alling | a fall of coal. a fall of coal. a fall of coal. alling down a chi red by fiving coa i'nl of rock. a blast, y a rush of coal. red. Struck by ears. |
| | falling off | nq s | a fall of co | by be | ribs f | starti sh of | y bei | / bein | ock fa | a fall of color of color of color of color |
| se of | by fa | bein | d by d by a fall ed by | Outside, ractured | two | hile a ru | led b | side, ed by | chute a r | a fall a falling falling a fall a falling a fall a |
| 1 Cau | , | ed by | acture cture d by a actur | Outs | and and | red w | crus | actur | and ed by | actured by a by a by fracting by off by off by off bowded tracting at a by ed |
| e and | rm fractured | rush | bs fra g fra ruise leg fr | necessary. | tween car and nule, | falling prop. kull fracture eg fractured | arm | inery ibs fr | tween car and chute, eg fractured by a ro | de. log fr. slocatur slocatur acture bone ruise nuise lown lown low low low low low low low low low low |
| Nature and Cause of | Arm 1 | Knee crushed by being bumped between | cars. Two ribs fractured by a fall of coal. Left leg fractured by a fall of rock. Back bruised by a fall of roal. Right leg fractured by a fall of rock. Left leg mangled by cars; amputation | necessary. Outside. Collar bone fractured by being caught be- | tween car and mule. Collar bone and two ribs fractured by | falling prop. Skull fractured while starting a battery. Leg fractured by a rush of coal in a bat- | tery. Right arm crushed by being caught in | machinery. Outside. Two ribs fractured by being caught be- | tween car and chute, Leg fractured by a rock falling on him. | Outside. Leg fractured by a fall of rock. Leg fractured by a fall of coal. Hip dislocated by a fall of coal. Leg fractured by falling down a chute. Collar hone fractured by fiving coal. Fack bruised by fiving coal from a blast. Fack bruised by fiving coal from a blast. Bark bruised by fiving coal from a blast. Hand blown off by a blast. Ankle dislocated by a vary of coal. Collar hone fractured. Struck by a car Outside. Arm fractured by cars. Leg fractured by being struck by a car Outside. |
| | - | - : | | : | : | | - | : | -: | |
| County | Columbia, | nbia, | Dauphin, Dauphin, Columbia, Columbia, Columbia, | | | | | | nbia, | |
| Ö | Colur | Columbia, | Dauphin, Dauphin, Columbia, Columbia, Columbia, | Dauphin, | Dauphin, | Dauphin, Columbia, | Dauphin, | Dauphin, | Columbia, | Dauphin, Columbia, Columbia, Columbia, Columbia, Dauphin, Columbia, Columbia, Columbia, Columbia, Columbia, Columbia, Columbia, Columbia, Columbia, Columbia, |
| Φ. | | | rain, | : | : | tain, | : | : | | ntain, nt |
| Name of Mine | | | 5 4 4 . | Williamstown, | Short Mountain, | C | Williamstown, | Short Mountain, | | |
| ıme o | Centralia, | | Williamstown, Short Mountair Centralia, Short Mountair | amsto | Mor | Short Mour | amsto | Mou | Midvalley, | Short Mour Centralla, Potts, Short Mour Centralla, Short Mour Centralla, Short Mour Centralla, Centralla, Centralla, Centralla, Centralla, Short Mour Centralla, Centralla, |
| N N | Centr | Potts, | Willi Short Centh Short Centr | Willi | Short | Short | Willi | Short | Midv | Short Centra Centra Potts. Short Centra Midvall Centra Short Centra Short |
| Married or single | vi vi | vi | ENNER | vi | M. | M.W. | vi | v. | υż | EE WEWENDERE |
| 93A | - 53 | . 19 | 227 227 60 88 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 | . 18 | . 24 | . 49 | . 19 | . 19 | . 33 | |
| | | | | | : | | Oiler, | | : | Miner, Miner, Starter, Starter, Miner, Miner, Starter, Iaboner, Runner, Laborer, Runner, |
| Ccupation | Laborer, | Driver, | | Driver, | Laborer, | | r, | rer, . | Laborer, | Miner, Miner, Miner, Starter, Miner, Miner, Miner, Starter, I.aborer, I.aborer, I.aborer, I.aborer, Runner, Ru |
| | | Driv | _ | | | | | | Lab | |
| | Italian, | | American, American, Polish, American, Irish, | American, | American, | American, | American, | American, | | American Bagilsh, Gornan, Trish, American Polish, Polish American Slavonian, |
| Vationality | .n, | American, | ican, h | ican, | ican, | ican, | ican, | ican, | Hungarian, | ican, ssh, ican, ican, h ican, h ican, h ican, h ican, h ican, h ican, h |
| | Italia | Amer | Amer Polisi Amer Irish, | Amer | Amer | Amer | Amer | Amer | Hung | Amer Engli Germ Irish, Amer Amer Polisi Polisi Amer |
| | i | | ick, | : | : | | | : | : | ay, n, n, |
| Name of Person | | : | | | | | | : | | *: . 2 : : : : : : : |
| o of I | use, | der, | Rathmus Milliams Adam Williams Charles Franchu Daniel J. Well Edward Gaughi | James L. Coles, | August Braner | Harry Esterline John Blaker, | Stuart Feister | Fred Klink, | Michael Henesey, | George Smich, John Guliver, Charles Klazer, Edward O'Neil, Arthur Blackway, Levis Tookes, Martin Caufield, William Poseawage (barles Warman, John Karable, |
| Nam | Nick Rouse, | John Snyder, | hmus m W rles F iel J | es L. | ust | Harry Esterli John Blaker, | art F | 4 Kh | hael | George Smich John Guliver, Charles Klage Arbure Blacks Arbur Blacks Jacob Shiley Martin Caufic Martin Caufic William Place (charles Warm John Karable Charles Warm |
| | Nic | Johr | | Jam | Aug | Har | Stua | Free | Mic | Geo John Chan Edw Barr Lew Jace Marr John Will Chan Chan |
| mant on to area | 6 | ಣ | 6 24 24 10 10 10 | 13 | 18 | 30 | 10 | 11 | 14 | #4recountable |
| Date of accident | Jan. | Feb. | March April May | | | June | July | | | Aug. Sept. Nov. Dec. |

FATAL ACCIDENTS

Falls of Coal, Slate and Roof

Short Mountain Colliery, February 1.—Joe Rinochl, laborer, was instantly killed by a fall of rock.

Centralia Colliery, June 21.—Dennis Gaughin, miner, was in-

stantly killed by a fall of coal while barring down top coal.

Midvalley No. 1 Slope, Skidmore vein, August 26.—Walley Balabosky, laborer, was instantly killed by a fall of rock. He was pushing a car into the face of the gangway when a large piece of rock fell from the roof.

Mammoth vein, Potts Colliery, December 4.—Anthony Reilly, starter, was fatally injured by a rush of coal. He was in the act of drilling a hole in a piece of coal in a blocked battery when the coal rushed and caught him against one of the chute props.

Cars

Short Mountain Drift, April 17.—Gustavus Martin, doortender, was instantly killed by an electric motor. He was on the wrong side of the door when the motor returned with a loaded trip and did not hear it. The motor ran through the door, was derailed and ran over Martin.

Centralia Colliery, July 17.—James Carr, doortender, was instantly killed by a motor and trip of cars. The motor had empty cars in front and behind. The cars in front prevented the motorman from seeing the door or the light of the doortender, the door for some reason being closed. The trip crashed through it and the doortender was found under the motor.

Short Mountain, September 18.—John Windishman, laborer, was instantly killed on the turnout at the bottom of slope by a trip of cars pushed by a locomotive. Being in the way of the cars he was warned of the danger but either he did not heed the warning or became bewildered, and got in the way of the cars.

Explosions of Powder and Dynamite

Potts Colliery, June 17.—John Reilly, starter, was instantly killed by an explosion of dynamite in the Primrose slope. He evidently had the dynamite in his bosom when it some way it was exploded, as his body was cut in two. No one was near him when the accident occurred.

Falling Down Shafts, Slopes, Etc.

Potts Colliery, January 19.—John Rissinger, outside laborer, was instantly killed by falling down the Primrose slope. The bridge over which timber cars are run was lowered at the wrong time and Rissinger, who was standing on the end of bridge, fell into the slope.

Potts Colliery, January 28.—Edward Curley, miner, was fatally injured by falling down a breast manway. He was descending the manway when he slipped and fell.

Williamstown Colliery, March 15.—Charles Buffington, laborer, was instantly killed by falling down No. 3 slope. He, with two other men was lowered in a car to the second level. When getting out of the car he slipped and fell to the bottom of the slope.

By Explosions of Gas

Williamstown Colliery, February 14.—Robert Graham, fire boss, was instantly killed by an explosion of gas in Bear Valley shaft. He had examined the working places with a safety lamp. After making the examination he lighted his naked lamp and entered an air lock which he had passed through twice before. Evidently there was accumulation of gas in the air lock which he ignited when he entered with the naked lamp.

CONDITION OF COLLIERIES

MIDVALLEY COAL COMPANY

Midvalley.—Ventilation fair. Roads and drainage fair. Condition as to safety good.

LYKENS VALLEY COAL COMPANY

Short Mountain.—Ventilation fair. Roads and drainage good. Condition as to safety good.

PHILADELPHIA AND READING COAL AND IRON COMPANY

Potts.—Ventilation good. Roads and drainage good. Condition as to safety good.

LEHIGH VALLEY COAL COMPANY

Centralia.—Ventilation fair. Roads and drainage fair. Condition as to safety good.

SUMMIT BRANCH MINING COMPANY

Williamstown.—Ventilation good. Roads and drainage good. Condition as to safety good.

IMPROVEMENTS

LEHIGH VALLEY COAL COMPANY

At Centralia colliery at the foot of No. 2 slope a new pump room has been excavated in the top rock, and a new tandem compound duplex pump installed, 26 inch and 42 inch steam cylinders, and 14 inch plungers, and 48 inch stroke, to furnish wash water for the breaker. A new 15 foot fan has been placed on the south side of the coal basin.

SUMMIT BRANCH MINING COMPANY

At Williamstown No. 2 shaft, they have installed a pair of 36 inch by 60 inch, and a pair of 36 inch by 48 inch double hoisting engines, and have built new engine house for each pair of engines. A water basin has been made around the new No. 2 shaft, and 1,900 feet of 12 inch steam line connecting No. 2 boiler house with Bear Valley slope engines.

LYKENS VALLEY COAL COMPANY

At Short Mountain colliery two pairs of 12 inch by 36 inch duplex pumps have been placed.

Mine Foremen's Examinations

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in the court house at Pottsville, April 26 and 27.

The Board of Examiners was James A. O'Donnell, Inspector; T. E. Snyder, Superintendent; Peter Haley and Patrick Quigley, Miners. The following named persons, having passed a satisfactory examination, received certificates:

Mine Foremen

Anthony Rowan, Edward Martin, William Singelton, Michael Kane, John Carr, Anthony McAndrew, Obed F. Riegel.

Assistant Mine Foremen

Henry Prichard, Benjamin Greene, Frank Richter, John L. Brennan, David Watkevs, David Samuels.

INDEX

| * · · · · · · · · · · · · · · · · · · · | Page. |
|--|---------|
| Letter of transmittal, | i |
| Introduction, | iii |
| Summary of work of Department, 1898 to 1905 inclusive, | Vi |
| Mine inspection, | vii |
| Inspection of safety catches, | Viii |
| Employment ages of boys, | x |
| Ages of boys in the breakers, | xxvi |
| Dangers of mining coal, | xxix |
| Fatal accidents, | XXX |
| Fatal accidents by falls and by gas, | xxxi |
| Fatal accidents, 1870-1905, | xxxii |
| Responsibility for accidents, | xxxiv |
| Number of employes inside and outside the mines, | xxxvi |
| Number of miners and miners' laborers employed, | xxxvii |
| Analyses of Pennsylvania anthracite coal, made by United States Sec- | |
| ond Geological Survey, | xxxviii |
| Historical notes of the Anthracite industry, | x1 |
| Table AA, tons of coal mined, days worked, persons employed, killed | |
| and injured, quantity of powder and dynamite used, etc., | xliii |
| Table A, number of each class of employes in each district, | xlv |
| Table B, classification of fatal accidents in each district, | xlvi |
| Table C, classification of non-fatal accidents in each district, | xlvii |
| Table D, number of gaseous and non-gaseous mines in each district, | |
| and production from gaseous and non-gaseous mines, etc., | xlviii |
| Table E, quantity of coal produced by each company that produced | |
| 500,000 or more tons, | 'xlix |
| Table F, classification of employes killed or fatally injured, 1877 to | |
| 1905, inclusive, | 1 |
| Table G, number and causes of fatal accidents, 1870 to 1905, inclusive | lii |
| Table H, nationality of persons killed or fatally injured, 1892 to 1905, | |
| inclusive, | liv |
| Table I, production of coal in tons of 2,000 pounds, explosives used, | |
| etc., 1892 to 1905, inclusive, | lv |
| Table J, number of employes, by counties, 1885 to 1905 inclusive, | lvi |
| Table K, production of coal, by counties, 1885 to 1905 inclusive, | lvii |
| Table L, fatal accidents per each 1,000 employes and tons of coal mined | |
| per fatal accident, 1870 to 1905 inclusive, | lviii |
| For some decidency and to 2000 Metalotto, international metalogical |
| FIRST DISTRICT, | 3 |
| Letter of transmittal, | 3 |
| Summary of statistics, | 4 |
| Table A, production of coal by the various operators and by coun- | * |
| ties, | 5 |
| | i i |

| | Page |
|--|------------|
| Table B, fatal and non-fatal accidents, tons of coal produced per | |
| accident, | (|
| Table C, classification of fatal accidents, | |
| Table D, classification of non-fatal accidents, | |
| Table E, occupations of persons killed, | |
| Table F, occupations of persons injured, | |
| Table G, nationality of persons killed, | 5 |
| Table H, nationality of persons injured, | |
| Table I, method of ventilation of mines, | 10 |
| Table 1, operators, location of collieries, railroads, etc., | 15 |
| Table 2, tons of coal mined, days worked, persons employed, pow- | |
| der used, etc., | 13 |
| Table 3, classification of employes, days worked in breakers, | 18 |
| Table 4, fatal accidents, | 21 |
| Table 5, non-fatal accidents, | 26 |
| Condition of collieries, | 30 |
| Improvements, | 30 |
| Mine foremen's examinations, | 31 |
| | |
| SECOND DISTRICT, | 33 |
| Letter of transmittal, | 33 |
| Summary of statistics, | 34 |
| Table A, production of coal by the various operators, and by coun- | |
| ties, | 35 |
| Table B, fatal and non-fatal accidents, tons of coal produced per | |
| accident, | 36 |
| Table C, classification of fatal accidents, | 37 |
| Table D, classification of non-fatal accidents, | 27 |
| Table E, occupations of persons killed, | 38 |
| Table F, occupations of persons injured, | 38 |
| Table G, nationality of persons killed, | 39 |
| Table H, nationality of persons injured, | 39 |
| Table I, method of ventilation of mines, | 40 |
| Table 1, operators, location of collieries, railroads, etc., | 42 |
| Table 2, tons of coal mined, days worked, persons employed, pow- | |
| der used, etc., | 44 |
| Table 3, classification of employes, days worked in breakers, | 48 |
| Table 4, fatal accidents, | 53 |
| Table 5, non-fatal accidents, | 56 |
| Description of fatal accidents, | 60 |
| Condition of collieries, | 62 |
| Improvements, | 6 3 |
| | |
| THIRD DISTRICT, | 65 |
| Letter of transmittal, | 65 |
| Summary of statistics, | 66 |
| Table A, production of coal by the various operators and by coun- | |
| ties, | 67 |
| Table B, fatal and non-fatal accidents, tons of coal produced per | |
| accident, | 68 |
| Table C, classification of fatal accidents, | 69 |
| Table D, classification of non-fatal accidents, | 69 |

| | Page. |
|---|-------|
| Table E, occupations of persons killed, | 70 |
| Table F, occupations of persons injured, | 70 |
| Table G, nationality of persons killed, | 71 |
| Table H, nationality of persons injured, | . 71 |
| Table I, method of ventilation of mines, | 72 |
| Table 1, operators, location of collieries, railroads, etc., | 74 |
| Table 2, tons of coal mined, days worked, persons employed, pow- | |
| der used, etc., | 76 |
| Table 3, classification of employes, days worked in breakers, | 79 |
| Table 4, fatal accidents, | 84 |
| Table 5, non-fatal accidents, | 86 |
| Condition of collieries,, | 90 |
| Improvements, | 90 |
| Mine foremen's examinations, | 91 |
| FOURTH DISTRICT, | 93 |
| Letter of transmittal, | 93 |
| Summary of statistics, | 94 |
| Table A, production of coal by the various operators and by coun- | |
| ties, | 95 |
| Table B, fatal and non-fatal accidents, tons of coal produced per | |
| accident, | 96 |
| Table C, classification of fatal accidents, | 97 |
| Table D, classification of non-fatal accidents, | 97 |
| Table E, occupations of persons killed, | 98 |
| Table F, occupations of persons injured, | 98 |
| Table G, nationality of persons killed, | 99 |
| Table H, nationality of persons injured, | 99 |
| Table I, method of ventilation of mines, | 100 |
| Table 1, operators, location of collieries, railroads, etc., | 102 |
| Table 2, tons of coal mined, days worked, persons employed, pow- | 4.00 |
| der used, etc., | 103 |
| Table 3, classification of employes, days worked in breakers, | 10? |
| Table 4, fatal accidents, | 111 |
| Table 5, non-fatal accidents, | 114 |
| Description of fatal accidents, | 118 |
| Condition of collieries, | 121 |
| Improvements, | 122 |
| FIFTH DISTRICT, | 127 |
| Letter of transmittal. | 127 |
| Summary of statistics, | 129 |
| Table A, production of coal by the various operators and by coun- | |
| ties, | 129 |
| Table B, fatal and non-fatal accidents, tons of coal produced per accident, | 130 |
| Table C, classification of fatal accidents, | 131 |
| Table D, classification of non-fatal accidents, | 131 |
| Table E, occupations of persons killed, | 132 |
| Table F, occupations of persons injured, | 132 |
| Table G, nationality of persons killed, | 133 |
| Table H. nationality of persons injured. | 133 |

| Table I, method of ventilation of mines, | . 1 |
|---|-----|
| Table 1, operators, location of collieries, railroads, etc., | |
| Table 3, classification of employes, days worked in breakers, | |
| Table 4, fatal accidents, | |
| Table 5, non-fatal accidents, | |
| Description of fatal accidents, | |
| Condition of collieries, | |
| Improvements, | |
| Mine foremen's examinations, | |
| SIXTH DISTRICT, | |
| Letter of transmittal, | |
| Summary of statistics, | |
| Table A, production of coal by the various operators and by counties, | |
| Table B, fatal and non-fatal accidents, tons of coal produced per | |
| accident, | |
| Table C, classification of fatal accidents, | |
| Table D, classification of non-fatal accidents, | |
| Table E, occupations of persons killed, | |
| Table G. retionality of persons injured, | |
| Table G, nationality of persons killed, | |
| Table I, method of ventilation of mines, | |
| Table 1, operators, location of collieries, railroads, etc., | |
| Table 2, tons of coal mined, days worked, persons employed, pow- | |
| der used, etc., | |
| Table 3, classification of employes, days worked in breakers, | |
| Table 4, fatal accidents, | |
| Table 5, non-fatal accidents, | |
| Description of fatal accidents, | |
| Condition of collieries, | |
| Improvements, | |
| SEVENTH DISTRICT, | |
| Letter of transmittal, | |
| Summary of statistics, | |
| Table A, production of coal by the various operators and by coun- | |
| Table P, fotal and man fatal accidents town of such a land | |
| Table B, fatal and non-fatal accidents, tons of coal produced per accident, | |
| Table C, classification of fatal accidents, | |
| Table D, classification of non-fatal accidents, | |
| Table E, occupations of persons killed, | |
| Table F, occupations of persons injured, | |
| Table G, nationality of persons killed, | |
| Table H, nationality of persons injured, | |
| Table I, method of ventilation of mines, | |
| Table 1, operators, location of collieries, railroads, etc., | |

| | Page |
|---|--|
| Table 2, tons of coal mined, days worked, persons emp | |
| der used, etc., | 216 |
| Table 3, classification of employes, days worked in brea | akers, 219 |
| Table 4, fatal accidents, | |
| Table 5, non-fatal accidents, | |
| Description of fatal accidents, | |
| Conyngham disaster, | |
| Condition of collieries, | |
| Improvements, | |
| Mine foremen's examinations, | 247 |
| EIGHTH DISTRICT, | 249 |
| Letter of transmittal, | and the second s |
| Summary of statistics, | |
| Table A, production of coal by the various operators a | |
| ties, | |
| Table B, fatal and non-fatal accidents, tons of coal p | |
| accident, | |
| Table C, classification of fatal accidents, | |
| Table D, classification of non-fatal accidents, | |
| Table E, occupations of persons killed, | |
| | |
| Table F, occupations of persons injured, | |
| Table G, nationality of persons killed, | |
| Table H, nationality of persons injured, | |
| Table I, method of ventilation of mines, | |
| Table 1, operators, location of collieries, railroads, etc. | |
| Table 2, tons of coal mined, days worked, persons emp | |
| der used, etc., | |
| Table 3, classification of employes, days worked in brea | |
| Table 4, fatal accidents, | |
| Table 5, non-fatal accidents, | |
| Description of fatal accidents, | |
| Condition of collieries, | 0.00 |
| Improvements, | |
| NINTH DISTRICT, | 281 |
| Letter of transmittal, | |
| Summary of statistics, | |
| Table A, production of coal by the various operators a | ****** |
| ties, | |
| Table B, fatal and non-fatal accidents, tons of coal p | |
| accident, | |
| Table C, classification of fatal accidents, | |
| | |
| Table D, classification of non-fatal accidents, | |
| Table E, occupations of persons killed, | |
| Table F, occupations of persons injured, | |
| Table G, nationality of persons killed, | |
| Table H, nationality of persons injured, | |
| Table I, method of ventilation of mines, | |
| Table 1, operators, location of collieries, railroads, etc. | , |
| Table 2, tons of coal mined, days worked, persons emp | 001 |
| der used, etc., | |

| | Page. |
|---|-------|
| Table 3, classification of employes, days worked in breakers, | 298 |
| Table 4, fatal accidents, | 303 |
| Table 5, non-fatal accidents, | 306 |
| Description of fatal accidents, | 312 |
| Improvements, | 329 |
| Harwood colliery and Cranberry colliery dam, | 327 |
| Mine foremen's examinations, | 336 |
| TENTH DISTRICT, | 337 |
| Letter of transmittal, | 337 |
| Summary of statistics, | 338 |
| Table A, production of coal by the various operators and by coun- | 990 |
| Table D. fatal and non-fatal assistants, tans of acal produced non- | 339 |
| Table B, fatal and non-fatal accidents, tons of coal produced per | 0.40 |
| accident, | 340 |
| Table C, classification of fatal accidents, | 341 |
| Table D, classification of non-fatal accidents, | 341 |
| Table E, occupations of persons killed, | 342 |
| Table F, occupations of persons injured, | 342 |
| Table G, nationality of persons killed, | 343 |
| Table H, nationality of persons injured, | 343 |
| Table I, method of ventilation of mines, | 344 |
| Table 1, operators, location of collieries, railroads, etc., | 346 |
| Table 2, tons of coal mined, days worked, persons employed, pow- | 0.40 |
| der used, etc., | 343 |
| Table 3, classification of employes, days worked in breakers, | 351 |
| Table 4, fatal accidents, | 355 |
| Table 5, non-fatal accidents, | 356 |
| Description of fatal accidents, | 358 |
| Condition of collieries, | 360 |
| Improvements, | 361 |
| Mine foremen's examinations, | 361 |
| ELEVENTH DISTRICT, | 363 |
| Letter of transmittal, | 363 |
| Summary of statistics, | 364 |
| Table A, production of coal by the various operators and by coun- | |
| ties, | 365 |
| Table B, fatal and non-fatal accidents, tons of coal produced per | |
| accident, | 366 |
| Table C, classification of fatal accidents, | 367 |
| Table D, classification of non-fatal accidents, | 367 |
| Table E, occupations of persons killed, | 368 |
| Table F, occupations of persons injured, | 368 |
| Table G, nationality of persons killed, | 369 |
| Table H, nationality of persons injured, | 369 |
| Table I, method of ventilation of mines, | 373 |
| Table 1, operators, location of collieries, railroads, etc., | 371 |
| Table 2, tons of coal mined, days worked, persons employed, pow- | |
| der used, etc., | . 372 |
| Table 3, classification of employes, days worked in breakers, | 375 |
| Table 4, fatal accidents, | 373 |

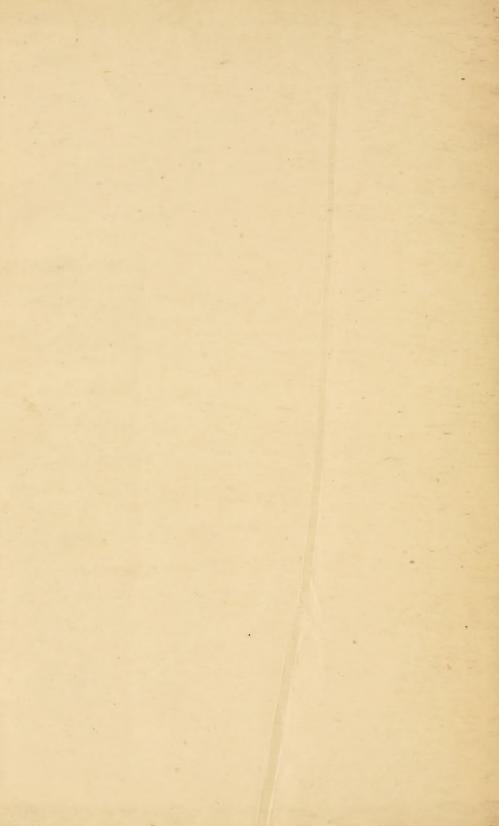
| | Page. |
|---|------------|
| Table 5, non-fatal accidents, | 380 |
| Description of fatal accidents, | 382 |
| Condition of collieries, | 385 |
| Mine foremen's examinations, | 386 |
| TWELFTH DISTRICT, | 387 |
| Letter of transmittal, | 387 |
| Summary of statistics, | 388 |
| Table A, production of coal by the various operators and by counties, | 389 |
| Table B, fatal and non-fatal accidents, tons of coal produced per | |
| accident, | 390 |
| Table C, classification of fatal accidents, | 391 |
| Table D, classification of non-fatal accidents, | 391 |
| Table E, occupations of persons killed, | 392 |
| Table F, occupations of persons injured, | 392 |
| Table G, nationality of persons killed, | 393 393 |
| Table H, nationality of persons injured, | 394 |
| Table I, method of ventilation of mines, | 396 |
| Table 2, tons of coal mined, days worked, persons employed, pow- | 00. |
| der used, etc., | 399 |
| Table 3, classification of employes, days worked in breakers, | 402 |
| Table 4, fatal accidents, | 40 |
| Table 5, non-fatal accidents, | 410 |
| Description of fatal accidents, | 413 |
| Condition of collieries and improvements, | 418 |
| Mine foremen's examinations, | 423 |
| THIRTEENTH DISTRICT, | 423 |
| Letter of transmittal, | 428 |
| Summary of statistics, | 426 |
| Table A, production of coal by the various operators and by coun- | |
| ties, | 427 |
| Table B, fatal and non-fatal accidents, tons of coal produced per | 400 |
| accident, | 428 429 |
| Table C, classification of fatal accidents, | 429 |
| Table D, classification of non-fatal accidents, | 430 |
| Table F, occupations of persons injured, | 430 |
| Table G, nationality of persons killed, | 43: |
| Table H, nationality of persons injured, | 431 |
| Table I, method of ventilation of mines, | 433 |
| Table 1, operators, location of collieries, railroads, etc., | 43 |
| Table 2, tons of coal mined, days worked, persons employed, pow- | |
| der used, etc., | 436 |
| Table 3, classification of employes, days worked in breakers, | 44(|
| Table 4, fatal accidents, | . 445 |
| Table 5, non-fatal accidents, | 147 |
| Description of fatal accidents, | 454 |
| Condition of collieries and improvements, | 460 |
| Mine foremen's examinations | 463 |

| | Page. |
|---|-------|
| FOURTEENTH DISTRICT, | 465 |
| Letter of transmittal, | 485 |
| Summary of statistics, | 466 |
| Table A, production of coal by the various operators and by coun- | |
| ties, | 467 |
| Table B, fatal and non-fatal accidents, tons of coal produced per | |
| accident, | 468 |
| Table C, classification of fatal accidents, | 469 |
| Table D, classification of non-fatal accidents, | 469 |
| Table E, occupations of persons killed, | 470 |
| Table F, occupations of persons injured, | . 470 |
| Table G, nationality of persons killed, | 471 |
| Table H, nationality of persons injured, | 471 |
| Table I, method of ventilation of mines, | 472 |
| Table 1, operators, location of collieries, railroads, etc., | 474 |
| Table 2, tons of coal mined, days worked, persons employed, pow- | |
| der used, etc., | 476 |
| Table 3, classification of employes, days worked in breakers, | 479 |
| Table 4, fatal accidents, | 484 |
| Table 5, non-fatal accidents, | 486 |
| Description of fatal accidents, | 488 |
| Condition of collieries and improvements, | 491 |
| Mine foremen's examinations, | 493 |
| TITTE TO THE TOTAL PARTY OF THE | 40~ |
| FIFTEENTH DISTRICT, | 495 |
| Letter of transmittal, | 495 |
| Summary of statistics, | 496 |
| Table A, production of coal by the various operators and by coun- | 427 |
| ties, | 497 |
| Table B, fatal and non-fatal accidents, tons of coal produced per | 100 |
| accident, | 498 |
| Table C, classification of fatal accidents, | 499 |
| Table D, classification of non-fatal accidents, | 499 |
| Table E, occupations of persons killed, | 500 |
| Table F, occupations of persons injured, | 500 |
| Table G, nationality of persons killed, | 501 |
| Table H, nationality of persons injured, | 501 |
| Table I, method of ventilation of mines, | 502 |
| Table 1, operators, location of collieries, railroads, etc., | 503 |
| Table 2, tons of coal mined, days worked, persons employed, pow- | |
| der used, etc., | 504 |
| Table 3, classification of employes, days worked in breakers, | 506 |
| Table 4, fatal accidents, | 508 |
| Table 5, non-fatal accidents, | 509 |
| Description of fatal accidents, | 510 |
| Condition of collieries, | 511 |
| Improvements, | 51.1 |
| Mine foremen's examinations, | 512 |









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